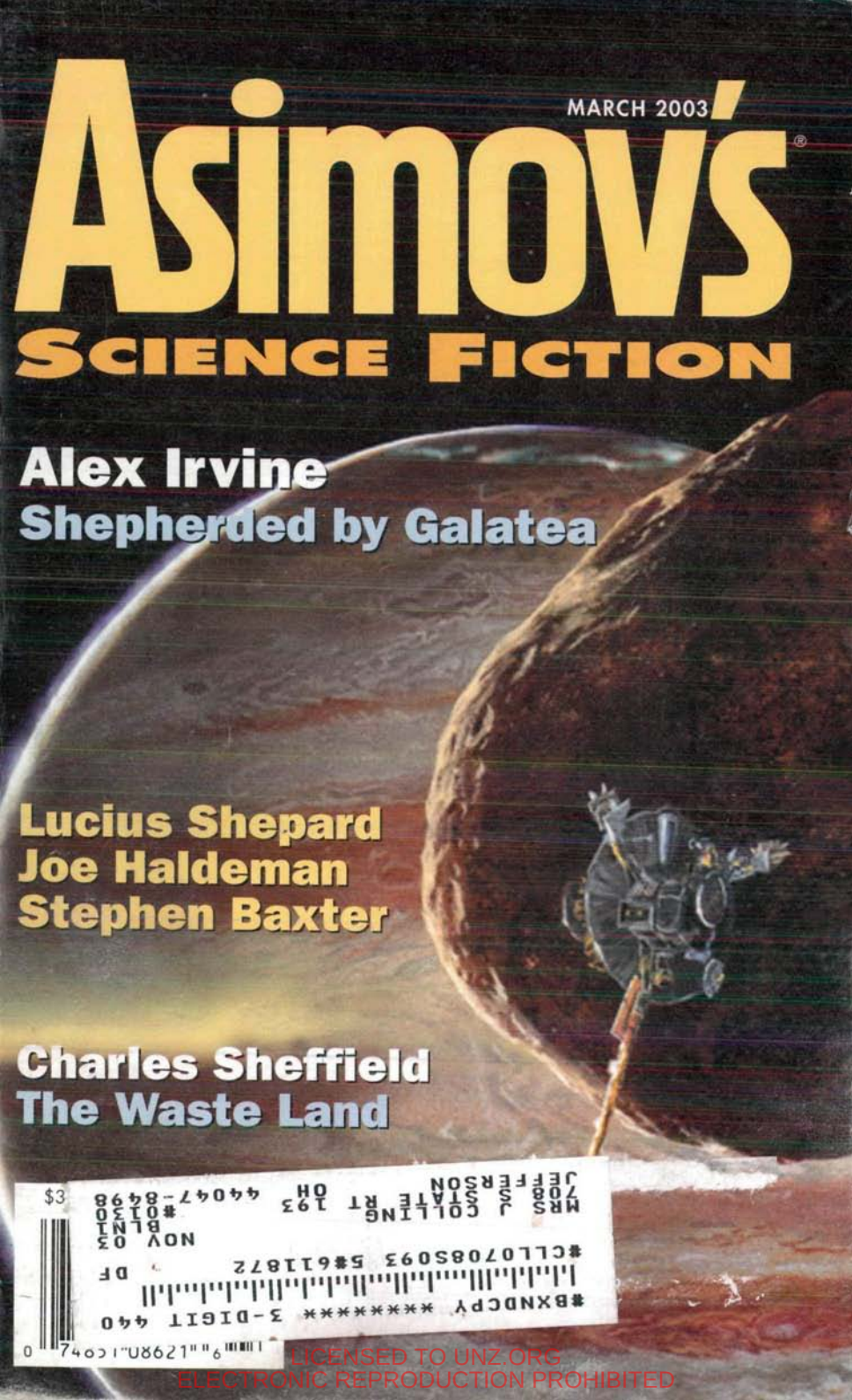
MARCH 2003

Asimov's
SCIENCE FICTION

Alex Irvine
Shepherded by Galatea

Lucius Shepard
Joe Haldeman
Stephen Baxter

Charles Sheffield
The Waste Land



$3
0 74057 12982 1 6
#BXNDCPY ********* 3-DIGIT 440
#CLL0708S093 5#611872 DF
NOV 03
BLN1
#0130
MRS J S STATELING RT 193
JEFFERSON OH 44047-8498

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

Be in Style...
with Heavy Cotton T's from

Asimov's SCIENCE FICTION and **ANALOG** SCIENCE FICTION AND FACT

Mail to: Dell Magazines Direct • 6 Prowitt St.
Suite Promo T • Norwalk, CT 06855-1220

Asimov's Science Fiction T-Shirt (AST)

SOLD OUT ____S SOLD OUT ____M ____L ____XL ____XXL **$9.99 each** $_____

Analog Science Fiction & Fact T-Shirt (ANT)

SOLD OUT ____S SOLD OUT ____M ____L ____XL ____XXL **$9.99 each** $_____

Shipping & Handling _____ x $2 $_____
(Add $2 per T-shirt or $6 for three or more.
Deliverable to US addresses only) **Total:** $_____

❑ Enclosed is my payment. Please charge my: ❑ VISA ❑ MASTERCARD

CARD #_____ EXP. DATE: ___ / ___

CARDHOLDER'S SIGNATURE_____

NAME _____

ADDRESS _____

CITY _____ STATE_____ ZIP_____

Order online or mail the order form with your payment today.

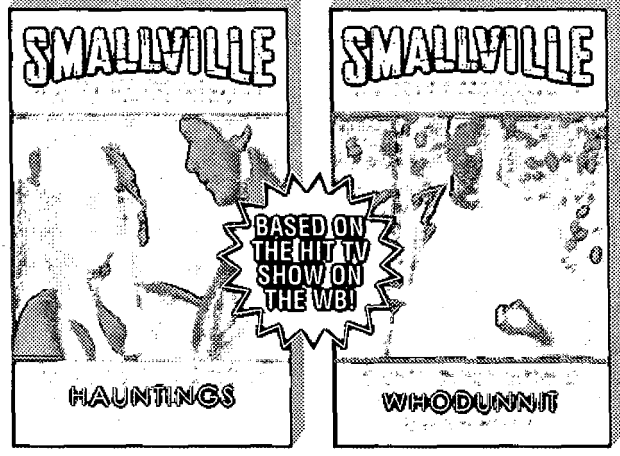
NSTS62

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

NEW FROM ASPECT

BEFORE THE RED CAPE...
BEFORE LOIS LANE...
THIS IS WHERE THE JOURNEY BEGINS.

America's favorite super hero returns in two new original novels in the Smallville series!



Available Now — **Coming in March**

Praise for the WB's SMALLVILLE

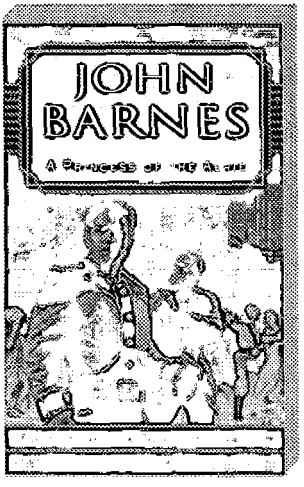
"Warm, smart and imaginative."
—Seattle Times

"Cleverness abounds in this flashy reworking of the Superman mythology."
—Los Angeles Times

JAK JINNAKA IS BACK IN A NEW SPACE ADVENTURE!

A secret mission for Aerie leads Jak to the mines of Mercury—to a showdown with an old enemy in...

A PRINCESS OF THE AERIE



AVAILABLE IN PAPERBACK

ASPECT WHERE IMAGINATON KNOWS NO BOUNDS

An AOL Time Warner Book Group Company

Visit our Web site at www.twbookmark.com

Smallville and all related characters, names, and indicia are trademarks of DC Comics © 2002. All rights reserved.

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

Asimov's Science Fiction

MARCH 2003

Vol. 27 No. 3 (Whole Number 326)
Next Issue on Sale February 25, 2003

Cover Art by Rob Day

Novelettes

14 SHEPHERDED BY GALATEA . . . . . ALEX IRVINE
38 ONLY PARTLY HERE . . . . . LUCIUS SHEPARD
72 IN THE ICEHOUSE . . . . . SALLY GWYLAN
102 THE WASTE LAND . . . . . CHARLES SHEFFIELD

Short Stories

58 THE GREAT GAME . . . . . STEPHEN BAXTER
98 GIZA . . . . . JOE HALDEMAN

Poetry

9 ALIENS . . . . . JOE HALDEMAN
37 CYCLE . . . . . BONITA KALE
57 DRACONIAN SOLUTION . . . . . PMF JOHNSON
97 WHAT IT COMES DOWN TO . . . . . DAVID LUNDE

Departments

5 REFLECTIONS: FANTASTIC LIBRARIES . . . . . ROBERT SILVERBERG
10 ON THE NET: LAUGHS . . . . . JAMES PATRICK KELLY
129 ON BOOKS: ECONOMIC DETERMINISM . . . NORMAN SPINRAD
142 THE SF CONVENTIONAL CALENDAR . . . . . ERWIN S. STRAUSS

Asimov's Science Fiction. Vol. 27, No. 3. Whole No. 326, March 2003. USPS 522-310, ISSN 1065-2698. GST #R123293128. Published monthly except for a combined October/November double issue by Dell Magazines, a division of Crosstown Publications. One year subscription $39.97 in the United States and U.S. possessions. In all other countries $47.97 (GST included in Canada), payable in advance in U.S. funds. Address for subscription and all other correspondence about them, Box 54033, Boulder, CO 80322-4033. Allow 6 to 8 weeks for change of address. Address for all editorial matters: *Asimov's Science Fiction*, 475 Park Avenue South, New York, N.Y. 10016. *Asimov's Science Fiction* is the registered trademark of Dell Magazines, a division of Crosstown Publications.

© 2003 by Dell Magazines, a division of Crosstown Publications, 6 Prowitt Street, Norwalk, CT 06855. All rights reserved, printed in the U.S.A. Protection secured under the Universal and Pan American Copyright Conventions. Reproduction or use of editorial or pictorial content in any manner without express permission is prohibited. All submissions must include a self-addressed, stamped envelope; the publisher assumes no responsibility for unsolicited manuscripts. Periodical postage paid at Norwalk, CT and additional mailing offices. Canadian postage paid at Montreal, Quebec, Canada Post International Publications Mail, Product Sales Agreement No. 260657. POSTMASTER, send change of address to *Asimov's Science Fiction*, Box 54625, Boulder, CO 80328-4625. In Canada return to Transcontinental Sub Dept. 525 Louis Pasteur, Boucherville, Quebec, J4B 8E7.

Printed in CANADA

PRINTED WITH SOY INK

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

June 8 - July 19, 2003

Writers-in-Residence:
Nalo Hopkinson
James Patrick Kelly
Kelly Link
Maureen McHugh
Richard Paul Russo
Howard Waldrop

Editor-in-Residence:
Scott Edelman

Deadline for Receipt of Application: Tuesday, April 1, 2003
For more information contact with SASE
Clarion 2003 c/o Mary Sheridan
E-193 Holmes Hall
College of Arts and Letters
Michigan State University
East Lansing, MI 48825-1107

Clarion Web site: http://www.msu.edu/~clarion

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

Asimov's
SCIENCE FICTION

ISAAC ASIMOV
Editorial Director (1977-1992)

GARDNER DOZOIS
Editor

SHEILA WILLIAMS
Executive Editor

BRIAN BIENIOWSKI
Assistant Editor

TREVOR QUACHRI
Technical Assistant

STEPHANIE RATCLIFFE
Editorial Assistant

MARY GRANT
Editorial Assistant

VICTORIA GREEN
Senior Art Director

JUNE LEVINE
Associate Art Director

CAROLE DIXON
Senior Production Manager

ABIGAIL BROWNING
Manager Subsidiary Rights and Marketing

SCOTT LAIS
Contracts & Permissions

JULIA McEVOY
Manager, Advertising Sales

CONNIE GOON
Advertising Sales Coordinator

BRUCE W. SHERBOW
Vice President of Sales and Marketing

SANDY MARLOWE
Circulation Services

PETER KANTER
Publisher

CHRISTINE BEGLEY
Associate Publisher

SUSAN KENDRIOSKI
Executive Director, Art and Production

ADVERTISING REPRESENTATIVE
David Geller Publishers' Rep.
(212) 455-0100

Stories from *Asimov's* have won 40 Hugos and 24 Nebula Awards, and our editors have received 16 Hugo Awards for Best Editor. *Asimov's* was also the 2001 recipient of the Locus Award for Best Magazine.

Please do not send us your manuscript until you've gotten a copy of our manuscript guidelines. To obtain this, send us a self-addressed, stamped business-size envelope (what stationery stores call a number 10 envelope), and a note requesting this information. Please write "manuscript guidelines" in the bottom left-hand corner of the outside envelope. The address for this and for all editorial correspondence is *Asimov's Science Fiction*, 475 Park Avenue South, New York, NY 10016. While we're always looking for new writers, please, in the interest of time-saving, find out what we're looking for, and how to prepare it, before submitting your story.

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

REFLECTIONS

by Robert Silverberg

FANTASTIC LIBRARIES

I have been, all my life, not only a prodigious producer of books but also a prodigious consumer of them—surely I've read five hundred books for every one that I've written, and that adds up to a *lot* of books. Which means that much of my life has been concerned with aggregations of words. Libraries, therefore, which are storehouses where aggregations of words aggregate, hold a central place in my imagination. The mere concept of a great mass of books set out on row after row of shelves gets my pulse racing. I yearn to explore those shelves and discover the wonders they contain. The fantasies of my dreaming mind often take me to the great libraries of the world—real or imaginary.

The other night, for example, I dreamed that I was wandering around in the stacks of the great New York Public Library building at Fifth Avenue and 42nd Street. I used to visit that library as a boy, when visitors' book requests were sent by pneumatic tube into some distant repository in the bowels of the earth, and the requested books would eventually come forth via dumb-waiter. (Is it still done that way, I wonder?) Those stacks aren't open to the public, so far as I know, and certainly I've never been in them: yet there I was in my dream, going freely from floor to floor in the dim, musty environment of millions of books, picking through all the printed treasures of the past five hundred years.

I know the origin of *that* dream. When I was a sophomore at Columbia University fifty years ago, I somehow wangled a pass to the stacks of the university library, one of the greatest in the country, which in theory was not open to undergraduates like me. Many was the afternoon that I would roam those bookish corridors, goggle-eyed at the wonders that had suddenly become accessible to me—and then I would stagger back to my room across the street with an armload of esoteric items, Kafka's short stories and Part II of *Faust* and the plays of Plautus and anything else that had caught my fancy. Why, in my dream, I should transpose my memories of the Columbia stacks to Manhattan's other great library downtown, I have no idea. But I awoke still gripped with the tingle of awe that such libraries always have aroused in me. And it set me thinking about some of the fictional libraries, libraries that no one will ever see, that have stirred the same sort of emotions in me.

There can be no doubt that the grandest one of all is the one that Jorge Luis Borges conjured up in his 1941 short story, "The Library of Babel." No other library could possibly match the scope of its collections, because Borges tells us in his very first sentence that it is, in fact, the universe:

"The universe (which others call the Library) is composed of an indefinite, perhaps an infinite, num-

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

ber of hexagonal galleries, with enormous ventilation shafts in the middle, encircled by very low railings. From any hexagon the upper or lower stories are visible, interminably. . . . Five shelves correspond to each one of the walls of each hexagon; each shelf contains thirty-two books of a uniform format; each book is made up of four hundred and ten pages; each page, of forty lines; each line, of some eighty black letters. . . ."

Borges goes on to tell us that the shelves extend for miles in all directions, that librarians spend their entire lives moving about within the Library without ever leaving the building, or seeing more than a small portion of the totality of the books it holds. (Though there is a myth that one book exists that contains all the information held in all the others, and that one librarian has read it, and thus has become analogous to a god.) When they die, the bodies of the librarians are piously thrown into the central ventilation shaft by their colleagues, and decompose gradually during the infinitely long descent.

The Library has existed throughout all eternity. No one has ever found two identical books in the collection. Its shelves contain everything that ever was or will be written in any language: "The minute history of the future, the autobiography of the angels, the faithful catalog of the Library, thousands and thousands of false catalogs, a demonstration of the fallacy of the true catalog . . . the veridical account of your death, a version of each book in all languages, the interpolations of every book in all books."

A library that is both eternal and infinite must, by definition, be the monarch of libraries. Borges tells us much more about it, and I urge you to seek the story out. My mind reverberates with awe whenever I read it.

But another that has had an equally powerful effect on my imagination is the one that H.P. Lovecraft conceived in his novella "The Shadow Out of Time," which I first encountered when I was twelve years old and which is a work of such scope and visionary power that it maintains its grip on me to this day. Lovecraft's protagonist, a professor at Miskatonic University in the New England town of Arkham, experiences dreams in which he is transported into the body of an unimaginably strange creature of the unthinkably distant past. The body he inhabits belongs to a member of the Great Race, creatures of a dying world who, "wise with the ultimate secrets, had looked ahead for a new world and species wherein they might have long life, and had sent their minds *en masse* into that future race best adapted to house them—the cone-shaped things that peopled our earth a billion years ago."

Lovecraft's Dr. Peaslee, upon entering an archaeological site in Australia that turns out to be the ruins of the city of those billion-year-old cone-shaped inhabitants of our world, is privileged to explore the library of the Great Race, a crypt within a windowless subterranean tower, a titanic repository "whose alien, basalt masonry bespoke a whispered and horrible origin," and there he finds "volumes of texts and pictures holding the whole of Earth's annals—histories and descriptions of every species that had ever been or that

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

ever would be, with full records of their arts, their achievements, their languages, and their psychologies." These records, Lovecraft's narrator tells us, were "written or printed on great sheets of a curiously tenacious fabric, were bound into books that opened from the top, and were kept in individual cases of a strange, extremely light rustless metal of grayish hue. . . . These cases were stored in tiers of rectangular vaults —like closed, locked shelves— wrought of the same rustless metal and fastened by knobs with intricate turnings." Lovecraft's man roams through these books, and then through the world of the Great Race itself, providing readers of the story with one of the richest and most vivid worlds of the imagination ever created.

In my own writing I've done some playing around with library fantasies as well. In more than one story I've sent time-travelers back to the lost library of Alexandria to rescue the treasures that were taken from us when the library and its many thousands of volumes were burned in antiquity: dozens of plays of Sophocles and Aeschylus, dialogues of Plato, much of Livy's history of Rome, Aristotle's study of Homer's poetry, Sextus Julius Africanus's chronicle of the history of the world from 5499 BC on, and much more.

But also I've invented libraries of my own. In the novel *Son of Man,* for instance, which takes place far in the future, my protagonist gets a guided tour of one that probably owes more than a little of its nature to the one in Lovecraft's "Shadow Out of Time":

"Ti opens a glass-faced cabinet and withdraws a sparkling ruby cube the size of her head. He takes it carefully from her, surprised at its lightness.

"The cube speaks to him in an unintelligible language. Its cadence is strange: a liquid rhythm, rich with anapests. . . . Undoubtedly he is hearing poetry, but not any poetry of his era. A skein of sound unreels. . . . 'What is it?' he asks finally, and Ti says, 'A book.' Clay nods impatiently, having guessed that: 'What book? What are they saying?'

"'A poem of the old days, before the moon fell. . . .'"

"Now she gives him an accordion-pleated box made, apparently, of rigid plastic membranes. 'A work of history,' she explains. 'The annals of a former age. . . .'

"'How do I read it?'

"'Like this,' she says, and her fingers slide between the membranes, lightly tapping them. The box sets up a low humming noise that resolves itself into discrete packets of verbalization. . . . He hears: '*Swallowed crouching metal sweat helmet gigantic blue wheels smaller trees ride eyebrows awed destruction light killed wind and between gently secret in spread growing waiting lived and connected over shining risk sleep rings trunks warm think wet seventeen dissolved world size burn.*'

"'It doesn't make sense,' he complains."

There's more, much more, in this ancient library of the future: "Maps, directories, catalogs, indices, dictionaries, encyclopedias, thesauri, tables of law, annals of dynastic succession, almanacs, almagests, data pools, handbooks, and access codes. . . . His mind floods with a million million questions. He will spend his next three infinities in this hall, mining the past for

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

knowledge." I can't quote it all. If imaginary libraries turn you on, go buy the book.

Nor do I have space here to take you on the full tour of the library I invented for my giant world of Majipoor: "An enormous brick-walled structure that ran like a long coiling serpent back and forth through the core of the Castle from one side to the other and around and around again. Any book that had ever been published on any civilized world was kept here, so they said. Shriveled old librarians who were little more than huge brains with dry sticks of withered limbs attached shuffled around all day long in there, dusting and arranging and pausing now and then to peer appreciatively at some choice obscure item of their own near-infinite collections."

Which, I must confess, reminds me a little of my own library, one floor down from the room in which I sit writing this now: groaning shelves that contain, among much else, just about all the science fiction magazines ever published from the time Hugo Gernsback invented such magazines in 1926 up through last month's *Asimov's*.

In order to use such a library properly, one needs proper indexes and other sorts of reference materials. A remarkable reference book that unlocks the curious treasures of the Gernsback publishing era came my way a few weeks ago, and I'll talk about it in next month's column. ○

CORRECTION:

A Mr. Charles N. Brown of Oakland, California, has called to my attention the fact that I garbled some statistics about Ursula K. Le Guin in my recent "Prodigies" column. In that column I said that Ms. Le Guin unsuccessfully submitted a story to John W. Campbell's Astounding *in 1950, when she was eleven, and then struggled on unpublished for another decade or so before finally breaking into print at the age of twenty-three.*

Those numbers should have looked fishy to me when I read the galley proofs of the column, since I was older than eleven myself in 1950, and I'm well aware that Ms. Le Guin—I am revealing no classified information here—is a few years my senior. Mr. Brown of Oakland is correct. What I should have said is that the year she first submitted a story to Campbell, unsuccessfully, was 1942, when she was twelve, after which she had to wait twenty *years before achieving her first professional sale to Cele Goldsmith of* Amazing Stories *in 1962. I have no idea where I found the erroneous information or why I accepted it so unquestioningly. The rest of the data in the column is, I hope, accurate.*

Mea culpa, mea maxima culpa.

—Robert Silverberg

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

aliens

the Meskel Portids
writhe in eternal harmony

like bouquets of glass serpents

clattering together

always seven or eleven
or thirteen of them per
family?
hive? (it doesn't
translate
into human)

under the huge red neversetting glare
of their carbon star

talking in batsqueak
hiss and squeal lisp and grate

talking of eternal things
meaningless to man

(they say) (when they care to speak) (to us)

they say

our galaxywide civilization
just another mayfly nuisance

they say

(lying?)

— **Joe Haldeman**

LICENSED TO LIBZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

On the Net

James Patrick Kelly

LAUGHS

funny?

So these two hydrogen atoms are walking down the street and the first one says, "Ohmigod, I think I lost an electron!" Concerned, the second one asks, "Are you sure?" To which the first one replies, "Yeah, I'm positive."

Thanks. Thanks so much. No, please hold your applause until the end.

In my experience, the science fiction community has a pretty good sense of humor. In the last few years we've given Hugos to Connie Willis for her novel **To Say Nothing of the Dog** <*http://www.epiphyte.net/SF/nothing-of-the-dog.html*> and to the creators of **Galaxy Quest** <*http://www.questarian.com*>, a movie that pokes some gentle fun at *us*, ferchrissakes. And why shouldn't we laugh at ourselves? Have we looked at us in the mirror lately?

There are many websites that purport to be funny, but few with content that can raise a smile. For example, I am often directed to sites that will mess around with my name. By typing "Jim Kelly" into **The Hobbit Name Generator** <*http://www.chriswetherell.com/hobbit/default.asp*>, I discover my Tolkien name is Sancho Bulge of Hobbiton. Whereas my smurf name, as told by the **Smurf Name Generator** <*http://www-personal.umich.edu/~mule/smurfgen.html*>, is Lydia Smurf and the **Star Wars Name Generator** <*http://www.insectdissection.com/save-curtis/swname*> makes me out to be Jimke Remin with the honorific Yl-lvega of Melatonin. Hmm. Am I having fun yet? Actually some non-genre name generators struck me as slightly more amusing. The website **Ticqle** <*http://www.ticqle.com/wired/play*> tells me my Blues name is Drooping Gums Jefferson and my Viking name is Ulkel the Vile. Meanwhile, when I join the WWF, I'll vault into the ring as Corporal Punishment, according to the **Pro-Wrestler Name Generator** <*http://sclose.home.mindspring.com/wrestler.htm*>. Actually the funniest site of this genre doesn't riff on your name at all. Instead **Lee's Use-less Super Hero Generator** <*http://home.hiwaay.net/~lkseitz/comics/herogen*> creates superheroes and villains. For example, maybe this summer we'll see the blockbuster movie ***The Irresistible Gorilla Fury,*** about a crime fighter whose powers include extreme popularity, telescopic vision, and perfect pitch. Gorilla Fury (*aka* Fury Gorilla) fights evil with his Fury Spores and gets around in his Fury Submarine. But has he met his match in The Mesmerizing Hate Bat (*aka* Bathate) whose powers are gravity

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

control and elasticity and who will pull his Bat Derringer on you when you least expect it?

And where does Hate Bat turn when he needs new evil gadgetry? Why to **The Villainsupply.com Home Lair** *<http://www.villainsupply.com>*, "your best online source for everything EVIL. If you are a supervillain, mad scientist, warlord, dictator, or despot, then this is the place for you." In the market for a new hideaway? Villainsupply.com has packages for every price range, from the corrugated metal Budget Lair with Mini-Dome ($4,999—save 20 percent) to the Subterranean Island Base With Optional Volcano Upgrade ($999,999,999.99). In the Traps and Torture section, you'll find the Shark Trap, the Maze Of Death, and the Cognitron 2000 Engram Destabilizer, while over in Superweapons, check out the Roentgen 8000 Ground-Based Gauss Projector and the Budget Rail Gun Home Kit. Unfortunately your enjoyment of this splendid site will be hampered by the annoying banner ads for merchants like Evil Realtor.com, Henchjobs.com and the World Domination Fund.

funnier

Maybe it is because I'm a writer, but I really, really like the **Book a Minute SF/F** *<http://www.rinkworks.com/bookaminute/sff.shtml>* site. I'll let these rascals introduce themselves to you: "Let's face it. There's a lot of science fiction and fantasy out there and very little time to read it in. Well sit back and relax, because your troubles are solved! We here at Book-A-Minute SF/F have come up with a solution. We've taken several great speculative fiction novels and extracted the important stuff, cutting out all the filler. (You'd be surprised how much filler there is sometimes.) With our ultra-condensed versions of your favorite speculative fiction, you can read entire books—entire series, even—in just one minute!"

And that, my friends, is the longest paragraph on the site. But perhaps you're skeptical. Here's the one minute version of *Gulliver's Travels,* as condensed by Samuel Stoddard:

(Gulliver visits some places.)

A Lilliputian

We're small.

A Brobdingnagian

We're big.

A Horse

We can talk.

(Gulliver goes home.)

Gulliver

Humanity sucks. I **hate** people.

THE END

Pretty amazing, huh? And to think you might have wasted days, perhaps weeks reading before you could discuss Jonathan Swift's masterpiece at a cocktail party or the con suite. Here's another classic you won't ever have to plow through: H. G. Wells' *The Time Machine,* courtesy of David J. Parker and Samuel Stoddard:

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

The Time Traveller

I'm going to travel ten scrillion years into the future. Maybe **they'll** know what my name is.

Weena

I'm a member of the beautiful Eloi race. We're dumb as bricks.

A Morlock

Har. We Morlocks are ugly and mean. We have taken your time machine.

(The Time Traveller recovers the time machine and goes home.)

THE END

I have from time to time in the past commended William Strunk Jr.'s **The Elements of Style** <*http://www.bartleby.com/141*> to beginning writers. Way back in 1918, Strunk handed down eighteen rules and principles, which are the writers' equivalent of the Ten Commandments. For me, the most important principle is Strunk's Thirteenth: *Omit needless words*. What Book a Minute SF/F teaches us is that almost all words are needless. But wait, you may be saying. Perhaps their revolutionary method works on individual novels, but can they squeeze a series into sixty seconds? Here's Isaac Asimov's Foundation trilogy, brought to you by Mssrs. Stoddard and Parker.

Hari Seldon

I used Psychohistory and set up two Foundations. Now it'll only be 1000 years between Galactic Empires instead of 30,000.

First Foundation

La la la, la la la, things are going pretty well.

The Mule

Ya-hah! I've ruined your plans!

First Foundation

Gasp!

(The Second Foundation fixes everything.)

THE END

funniest

I'm sorry to have to wander off the reservation for my pick for the funniest site on the web, but is there any question that it's "America's Finest News Source," **The Onion** <*http://www.theonion.com*>? *The Onion* is a dead-on newspaper parody, with a special emphasis on the *USA Today*-ization of print journalism. *The Onion* was recently in the (allegedly) real news when the most popular newspaper in China, *The Beijing Evening News,* foisted *The Onion's* send-up of Congress as a greedy baseball team as legitimate international news on 1.25 million credulous readers. Here's the Onion's headline: **Congress Threatens to Leave D.C. Unless New Capitol is Built** <*http://www.theonion.com/onion3820/congress_threatens.html*>. According to *The Onion,* the two cities vying to host the Congressional relocation were Memphis and Charlotte. Told that the story was not true, an editor from The Beijing Evening News said, "We

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

would first have to check that out. If it's indeed fake, I'm sure there will be some form of correction."

And yet, although the staff of *The Onion* draws material from today's headlines, they have a penchant for the absurd that inspires them to make the fantastic literal, a sensibility that is often featured here in the pages of *Asimov's*. For example, consider **U.S. Dept. of Retro Warns: 'We May Be Running Out of Past'** <*http://www.theonion.com/onion3214/usretro.html*>. Or how about **Stephen Hawking Builds Robotic Exoskeleton** <*http://www.theonion.com/onion3123/hawkingexo.html*>. And then there's **X-Files Fan Killed For Knowing Too Much** <*http://www.theonion.com/onio3603/xfiles_fan_killed.html*>. And what about this headline from *The Onion's* June 29, 1939, edition, **Enormous Radio Tower Placed Atop Earth: RKO Radio Pictures Could Disrupt Earth's Orbit With Colossal New Logo** <*http://www.theonion.com/onion3823/history_3823.html*>. Wasn't that a story by **Michael Swanwick** <*http://www.michaelswanwick.com*>? Or was it **Howard Waldrop** <*http://www.sff.net/people/Waldrop*>? In any event, when **Terry Bisson** <*http://www.terrybisson.com*> becomes Pope-Emperor of the Entire Galaxy Except Peoria, IL, it will fall to *The Onion* to explain his policies.

exit

So a neutron walks into a bar and asks the bartender for a Budweiser. When it's served, the neutron asks how much it will be. The bartender just smiles and waves his hand. "For you," he says, "no charge."

Thank you, thanks very much. You've been a great audience. ○

VISIT OUR WEBSITE

www.asimovs.com

Don't miss out on our lively forum, stimulating chats, controversial and informative articles, and classic stories.

Log on today!

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

SHEPHERDED BY GALATEA

Alex Irvine

Alex Irvine is a native of Ypsilanti, Michigan. Tor published his novel, *A Scattering of Jades,* in July 2002, and two chapbooks, *Rossetti Song* (Small Beer Press) and *Down in the Fog-Shrouded City* (Wormhole Books), came out at the same time. An as-yet-untitled collection of his short fiction, which has appeared in *F&SF, SciFi.com, Starlight 3, Lady Churchill's Rosebud Wristlet, Strange Horizons,* and elsewhere, will appear from Subterranean Press sometime this year. Although we've previously published two of his poems, "Shepherded by Galatea" is Mr. Irvine's first story for *Asimov's*.

I dropped through the outer layers of clouds, wispy methane and thick bands of hydrogen sulfide I imagined I could smell even though any crack big enough to admit odor would already have killed me. As the density of the atmosphere increased, so did the force of the winds, and between the water band and the ammonia clouds below it I was ripped off to the west at something close to a thousand kilometers per hour.

The water clouds are especially dangerous because of the lightning. If I'd had a window it would have been quite a show, and even though all I had to go by was the crackle in my headset and the occasional hesitation in Bunny's answers to my questions I could tell that there was one fine electrical storm out there on this eleventh of October in the year 2177. It abated as the temperature dropped from nearly 300K in the outer reaches of the atmosphere to a brisk seventy-four at that magic one-bar level.

Bunny slowed the ship down without me having to tell him. I watched displays: external temperature creeping up, atmospheric pressure not just creeping but leaping. At a thousand kilometers in I signaled my companion sensor array to distribute. At three thousand kilometers into the detectable atmosphere, I was reading ten gigapascals of pressure and a

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

balmy 970K. From there the temperature and pressure curves steepened until, a mere thousand kilometers below me, at what we gas-moles call the adamapause, the atmosphere precipitated into a mix of ices at 3000K and something like thirty gigapascals. The equivalent of being under three thousand kilometers of water on Earth, if that water was superheated to the point that it could boil iron.

"Bunny," I said, "kick up the conductors and drop us a little lower."

It isn't easy mining diamonds on Neptune.

The boiling point of diamonds is 5100 degrees Kelvin. The deep interior of Neptune is about 7000 degrees Kelvin. But the diamonds don't boil away because of the incredible pressures they're under, something like six hundred gigapascals. Even my ship, which has been tested up to about thirty-five gigapascals with conductors running as hot as they can, would become some kind of superheated condensate at that kind of pressure. The conductors take advantage of the electrical charge in Neptune's atmosphere, especially right around the adamapause where the pressure spikes and little molecules like methane get broken apart and rearranged in all kinds of interesting and possibly remunerative ways (superconducting magnets also keep off the radiation, which pays off in the long run too). My ship's hull is one huge directional conduit; the layers of charged molecules nearest it are swept off and around, creating an effect kind of like a wing and kind of like a curveball. I prefer the curveball analogy myself, since one very real byproduct of the conductors' operation is that I have to fly in circles, following the bubble of decreased pressure created by the directed conduction. I am propelled by the increased density at the rear of the ship, so if I stop at any pressure greater than a dozen or so Gpa, I'll get rear-ended by a big chunk of the atmosphere of Neptune. Changing direction is possible but tricky; you have to alter the directional current ever so slightly to create a minucule imbalance on one side or another, or above and below. Conductors are not good to steer by.

Every once in a while the conductors get hot enough that Neptune's atmosphere can act as a sink. You know you're not behind a desk when you're counting on a 3000K atmosphere to cool the hull of your ship so you don't die.

The combination of Neptune's highly charged outer atmosphere and its dense interior and the fact that its poles get a lot of seasonal heat due to the planet's axial tilt means that lots of heat is released by convection. Superheated condensates roil up from the interior, break through the adamapause, and release heat and pressure in great geysering storms that from Earth look like, well, spots. If you're a little closer they still look like spots, but you can do quick spectrographic analyses to look for the presence of hydrogen cyanide, which is a dead giveaway that a big hot chunk of Neptune's lower atmosphere has just come up to bust like a bubble the size of Phobos. And when that happens, there are often diamonds to be found.

And when there are diamonds to be found, there you will find yours truly, Stig Davidsohn, in his ship *Eightball* with his trusty AI sidekick Bunny.

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

The diamonds precipitate out at the adamapause, as the combination of pressure and temperature breaks the C-H bond. Methane becomes ethane, which outgasses, and hydrogen, which liquefies and sinks. What's left over is carbon, which becomes diamonds about ten microns across. As they too sink toward whatever makes up Neptune's core, the increasing pressure molds millions of these tiny diamonds together. Sometimes, very rarely, Mother Nature molds these larger diamonds well enough that they can survive the sudden journey of thousands of kilometers combined with a radical change in pressure and temperature. Those diamonds that survive, you will not be surprised to learn, are highly prized by those populations on Earth and elsewhere that lie awake nights figuring out ways to spend their money.

Or maybe you will be surprised to learn that. I was. I figured that a diamond from Africa was as good as a diamond from Neptune. I was wrong. I underestimated the importance of novelty to the psychology of the consumer.

Neptunian diamonds, you see, have an almost unbearable cachet. They cost several orders of magnitude more than regular old Earth diamonds for the sole reason that they are fashionable, and they are fashionable for the sole reason that they cost a lot more than regular Earth diamonds. I do not follow fashions, and I have so far failed to understand how this one operates.

But the cost of Neptunian diamonds, let me say, is not unreasonable. My fine ship *Eightball* is expensive to maintain and operate. Bunny is expensive to maintain and operate.

I am not cheap either.

The HCN plume I was following had spread rapidly under the influence of Neptune's psychotic high-altitude weather, but I had managed to track it to the intersection of the imaginary lines 33 degrees south by 272 degrees west. Near what I liked to think of as Neptune's austral pole, on the edge of a constant and spectacular auroral show, and not incidentally smack in the middle of the most magnetically charged region of the planet. The closest thing to a good vein that my generation of miners is ever going to find. Magnetism keeps the electric charges humming, the poles get lots of solar energy to generate convection, and the auroras keep the weather lively. Heat plus electricity, on Neptune, equals diamond fountains.

I settled in less than one hundred kilometers above the adamapause, letting Bunny set *Eightball* in a loop around the bubble of Neptune's innards that I was pretty sure was going to pop soon. HCN plumes were nearly always harbingers of fine things to come, and what better omen of wealth than cyanide, I always say.

"Conductors running 80 percent," Bunny said. I try to keep them there; any higher and you're within the margin for error.

I wished I had a window. There's no way to do it, of course. The only materials that can survive these kinds of pressures—nanoengineered superconducting polymers, mostly—are not transparent. Still, like every other time I'd ever done this, I wanted to see. What did it look like out there? I

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

worked in the dark. Inside, my ship was lit and comfortable. A little warm, even, once the conductors started shedding heat.

Outside, as far as anyone knew, there was no visible light. I was four and a half billion kilometers from my mother's Earth—and yes, I was born there—and thirty-seven hundred kilometers deep in the atmosphere of Neptune, surrounded by temperatures and pressures that humans couldn't even replicate in labs until the end of the twentieth century. And it was dark.

The array of sensors I'd left in the upper atmosphere started to ping. The bubble was bursting. Bunny tightened the loop, and I resisted the urge to amp up the conductors. Strange magnetic things started to happen when the conductors were dialed up all the way. Ambient pressure was twenty-six Gpa. They could handle it.

Now came the hard part. At some point during the loop, when the sensors pinged the right way and Bunny thought the time was ripe and I decided that they were both wrong and I was going on my intuition like I always did, I would pop a small vacuum chamber under *Eightball*'s nose (I call it the nose because it usually faces forward; *Eightball* is actually spherical). If I did that at the right time, I would suck in about one thousand cubic meters of relatively low-pressure ejecta from Neptune's lower atmosphere. If things went really well, the conductors would blow away all of the sulfides and methane condensates and liquid molecular hydrogen—leaving those diamonds that had survived their explosive decompression to be scooped into the vacuum chamber of the good ship *Eightball*.

If things went a little bit wrong, I would die before I ever knew anything was wrong. An injection of high-pressure condensates into the vacuum chamber could blow the seals around it; the decompression as I climbed back into the higher atmosphere could also burst the chamber. The door could stick open. Oxygen could leak into the vacuum chamber and react violently with the hydrogen that always came in with the diamonds. Or the wind could shear and thrust me down into a part of Neptune where the conductors wouldn't make any difference.

This is why Neptunian diamonds are expensive.

Many people think that all gas-moles are misanthropic, angry people who harbor secret wishes to kill themselves. I can't characterize the profession, but speaking for myself, I like the work, and I've got no urge to die. In fact, it's the other way around. When I come up through the crackling band of water clouds and burst out through the last hydrogen reaches of Neptune's atmosphere, and I'm alive and there are diamonds in the nose, that's living. The stars shine a little brighter, Neptune glows a little bluer, and Triton seems pinker than it has any right to be.

It was hot in the cockpit, and I told Bunny to goose the conductors another 5 percent.

The sensor array pinged, indicating that the outflow from Neptune's interior was peaking. I had Bunny correct our prospector's loop, and when he'd gotten *Eightball* shaving the edges of the big upwelling—which would turn into a storm soon, and be visible from Earth by the time I got back to the orbital base—I counted to ten and flipped the switch to pop the vacuum chamber.

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

I didn't hear anything, but then, I never did. Once, a few years ago, I could have sworn I'd felt a thump, and when I got back to the station I had a diamond crystal that weighed in at nine hundred and seventeen grams. Ever since then I'd been waiting to feel that thump again, and I never had. Probably I just made it up out of being hopeful. And today, I wasn't just hopeful. I was a little bit desperate.

When I popped the switch, the chamber flashed open for some minucule fraction of a second, sucking in whatever was around it; then it either closed automatically or the ship collapsed into a molten smudge. When the dummy light flashed announcing that the chamber had captured material and closed successfully, I goosed the conductors and let Neptune's atmosphere push me up toward space.

On the way out of the upper reaches of Neptune's hydrogen stratosphere, I always tried to pass over the tiny moon Galatea and the glittering arc segments that she shepherds around the planet. This time I was on the wrong side, and couldn't see the arcs as I passed below the Adams ring and fell away from Neptune toward Roderick Station.

The orbital station looked like it was surrounded by a million Tinkerbells, which likely meant that they'd just blown their wastes. Nothing sparkles like explosively decompressed slivers of water-rich organics. It was so easy to refine water out of Neptune's rings and upper atmosphere that nobody bothered to recycle out here. Most of what went out the waste locks eventually fell back into the planet anyway, or became part of its rings. Some of it eventually became diamonds, a fact that was carefully concealed from in-system consumers.

Roderick was a radial station along the lines of Kadadaev's first Lagrange installations. Eight spokes, each half a kilometer long and twenty meters thick, connected the hub with the outer ring. Halfway along the length of the spokes, another ring stabilized the structure and made getting around inside it a little easier. Roderick's hub was about half a kilometer in diameter, and a full klick in length; at either end of its cylinder were zero-g construction and maintenance labs, and most of its center was taken up by the Big Mak fusion reactor and associated safety and energy-distribution apparatus. The outer ring, ovoid in cross section and measuring fifty by one hundred meters, housed gravity-sensitive things like vegetables and human beings. A monorail ran around the inner ring at about the pace of a brisk walk but without all of the low-g navigational hassles. Roderick's rotation provided about point-seven g in the outer ring, enough to keep the brain and inner ear oriented and prevent the worst long-term health problems.

Total volume: two hundred million cubic meters, give or take. Total population: three hundred, also give or take. Total diameter: almost exactly an old English mile. Don't ever let anyone tell you that was an accident. Roderick was American-designed by people who were still nostalgic for feet and inches.

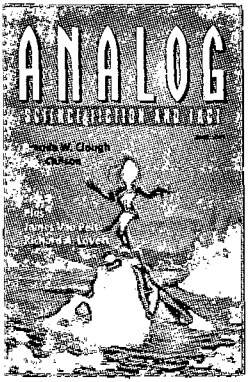
Roderick featured eight docking stations, one opposite the conjunction of each spoke with the outer ring. These stations were basically extensions of the spokes, jutting out about seventy meters from the outer ring

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

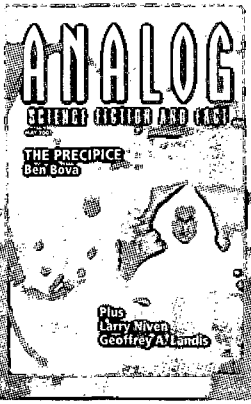
TOUR THE UNIVERSE

Just $6.95!

Save 60%



Explore the boundaries of imagination with the Analog Science Fiction Value Pack. You get five of our most popular back issues for just $6.95 plus shipping. That's a savings of 60% off the regular price!



Complete the order form below and mail it back to us with your payment.

PENNY MARKETING

Dept. SM-100, 6 Prowitt Street, Norwalk, CT 06855-1220

☑ **YES!** Please send me my **Analog Science Fiction Value Pack.** I get 5 back issues for just $6.95 plus $2 shipping and handling ($8.95 per pack, U.S. funds). **My satisfaction is fully guaranteed!** My payment of $ _____ is enclosed.
(AFPK05)

Name: _____
(Please print)

Address: _____

City: _____

State: _____ **ZIP:** _____

Please make checks payable to Penny Marketing. Allow 8 weeks for delivery. Magazines are back issues shipped together in one package. To keep prices low we cannot make custom orders. Add $4 additional postage for delivery outside the U.S.A. Offer expires 12/31/03. A2C-NANVL1

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

and terminating in magnetic docking arms and a lamprey airlock. I ghosted *Eightball* into Dock Number Seven, one of four equipped with damping facilities to drain some of the stored juice from *Eightball*'s hull. Docks Five through Eight also had multiple blast doors and quick-release explosive bolts in the event of a catastrophic failure at diamond offload. This happened more often than anyone involved in the industry liked to admit or think about. Neptune's chemistry was still understood only imperfectly, and once in a while something would react violently to the depressurization of a gas-mole's vacuum chamber. Best-case scenario in this situation is a ship blown to pieces and a big hole where the docking station used to be. Worst-case is a big hole in Roderick's outer ring and a suspension of all operations while Gas Giant Recovery Industries investigators try to figure out exactly what the trigger was. They never do, but we keep hoping.

So depressurization takes place in a vacuum as pure as we can get it.

"I've got the preliminary density in the chamber," Bunny said. "Approximately one point three grams per cubic centimeter."

One point three. Ambient atmosphere at that depth was right around one, which meant something heavier was in the chamber. I let myself get hopeful for exactly a count of three, then shifted gears back into my typical pessimism.

The lamprey locked onto my ship and I hopped off into gravity. It's an interesting feeling, by the way, to go from the gravity near Neptune's adamapause to zero-g to Roderick-g all in a few hours. Before locking the ship down, I uploaded Bunny to Roderick's localsphere and made sure he was all there. I know three other moles who have lost their AIs when their ships blew up in the dock.

You're probably thinking: why not do the depressurization farther away from the station? And you'd be right to think that, and the answer you'd get if you asked the question might leave you shaking your head.

Truth of it is, GGRI doesn't want gas-moles stealing diamonds, and the only way they can make sure of that is to have the diamonds unloaded on-station. I'm sure that somewhere a cost-benefit analysis was done and it was determined that the financial and personnel risks of depressurizing on-station were outweighed by the potential for employee skimming of valuably arranged carbon atoms if the depressurization and initial inventory were conducted in space. I mentioned that Neptunian diamonds are worth a lot of money, I believe, and GGRI has shareholders to answer to, and if a hole gets blown in their station once in a while in the name of maximal shareholder value, well, that's the cost of doing business.

I have a pet theory that the accidents also work as price supports for the industry. People back on Earth and Luna and Mars hear that gas-moles on Neptune are disintegrating once in a while, they form romantic opinions about the industry and they want that much more to associate themselves with the product.

Which is not to say that GGRI is entirely cavalier with the lives of its employees. There are safety precautions in place. The depressurization takes place in a near-perfect vacuum contained in a mobile chamber that is maneuvered by robots into position over the vacuum chamber door. The

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

contents of the chamber, which are about to go from thirty gigapascals to none, are next cooled by a liquid-nitrogen bath to near-ambient, which on the shadow side of Roderick is usually about fifty K. Then and only then, when Boyle's Law has done its work, is the chamber door cracked. Remaining gases are siphoned off, and then the door is opened the rest of the way to see how many diamonds are left. If any.

Gas-moles are independent contractors, mostly because constantly paying death benefits got to be an annoyance to GGRI shareholders. We are very well paid, though, and it is written into our union contract that we supervise the depressurization of our own ships. GGRI doesn't want us stealing diamonds, okay, but we don't trust them either.

I got Bunny started on the depressurization maneuvering, and I watched from the supervisor's office at the base of the docking arm. The view was fine, Neptune's rings shining in the sun and tiny Galatea leading the arc segments in the Adams ring around the great blue planet. Just showing a bright pink limb around the edge of the planet, Triton hove into view, and the light in the room picked up some of its methane hue. An odd place, Neptune. Not as odd as Io or Jupiter, maybe, but odd for a boy who grew up in Minnesota and went out-system when he was still a kid.

The big spherical chamber floated up to the big spherical ship. They stuck together. I started watching readouts instead of the window. The only visible thing that could happen in the next few minutes was the destruction of my ship, and I'd be able to see that from the screens anyway. There were three possible outcomes, the way I had it figured. Either the ship would blow up or the ship would not blow up and there would be only atmospheric junk in the chamber or the ship would not blow up and there would be diamonds in the chamber.

The spectrometer display lit up, meaning the robot stevedores had finished the cooling and cracked the vacuum chamber. No big boom rattled through the walls of the docking arm, so I figured *Eightball* hadn't exploded; now all that remained to be seen was whether I'd scored. Big convection, right time of year for that latitude . . . everything was right.

I was sweating a little bit, there on the shadow side of Roderick Station where it's always a little bit cold. "You would think," I said to Figo, the tech monitoring the depressurization, "that Roderick's rotation would distribute the heat a little better."

He shrugged. "Shadow side always seems to cool faster than the sun side heats up." Figo knew how I was when the diamonds were hiding, and so did I. Complaining about the station thermostat, for God's sake.

The results came up on the screen and simultaneously Bunny spoke through my audiolink. "Bad luck, Stig," he said. "Only six grams. The rest of it's just hydrocarbon sludge."

Six grams.

Thirty carats.

Maybe a third would survive cutting, and even that remainder would be worth a small lottery in the boutiques of Bangkok or the tourist shops at Burroughs Base. But that was after transport, brokering, and finishing, not to mention retail markup. Six grams of diamonds for me meant I

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

should have stayed at home. GGRI wouldn't even break even on the fuel I'd exhausted getting out of Neptune's gravity well.

That made seven in a row. Seven drops without turning a profit, and my contract up at the end of the month.

Things could be worse, I told myself that night as I glanced over the delayed-burst Luna League maghockey games on the station net. I could be a war refugee. I could have an incurable disease. I could be popular with women.

None of it changed the fact that I had made seven profitless drops in a row, and in the final month of my contract. If GGRI re-upped me after that kind of performance, they'd hear from their shareholders, and it didn't matter that I'd been a gas-mole for eleven years and never failed to turn a profit on each and every contract. Forty-three consecutive quarterly returns, sometimes as little as 2 percent (what GGRI termed a Probationary Return) but more often in the neighborhood of twenty. And once I made the magic Keystone: one hundred percent return. None of it mattered. In a GGRI ledger, you only get one line of red ink.

Not that I was railing against the system. I'd had my eyes open when I signed on. I knew that atmosphere mining was purely results-oriented. I also chose to stay contract even after GGRI wanted me to join their stable; the salary they offered amounted to my commission on a 10 percent return, and I figured that if I couldn't do better than 10 percent most months I'd be better off in another business anyway.

Another of the stereotypes about gas-moles is that we're all prima donna hotshots. Again, I can't speak for the profession, but I see myself as an artist, and art is about failure as often as it is about success. Ask any sculptor. And there is an art in following a cyanide plume through four thousand kilometers of raging wind and a three-thousand-degree temperature gradient; there is an art in circling an upwelling dome of superheated Neptunian atmosphere, staying close enough to take advantage when it bursts and far enough away that the burst doesn't incinerate you; there is an art in riding a downdraft off the side of a high-atmospheric storm the size of Mars and pulling off the draft right before the adamapause when holding on for another thirty seconds would be fatal; there is an art to knowing when to pop the vacuum chamber and capture those diamonds that have fallen so far only to come boiling up again.

I tried to explain this to my last girlfriend, who was at that time a gas-mole herself. We were in bed. When I was done she propped herself up on one elbow and looked thoughtful.

"What?" I said.

A little crease appeared between her eyebrows, then faded. "I was just trying to remember," she said, "when I have ever heard such a load of self-serving pseudo-transcendental crap. But I don't think I ever have."

I was, as you might expect, at a loss for words.

So she went on. "We're miners, Stig. We fly ships down into the soupy part of Neptune's atmosphere and we harvest diamonds from convection storms. Then we come back up here and GGRI pays us a fraction of what

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

those diamonds are worth, and then we go out and do it again until we either get sick of it, we get fired, or we get killed. It's not art. It's work."

She got up then, and swept the sheet off the bed as if I might see something I wasn't supposed to, and went into the bathroom. We weren't together too much longer, and she didn't stay a gas-mole. She sold the note on her ship and used the money to lease a retrofitted asteroid miner and dock space from GGRI so she could lead photographic and vid tours of Neptune's rings. Valerie van Gaal; we called her Valerie the Valkyrie because she was built like an opera singer and loud like an opera singer and there was just something Wagnerian about her.

It's her fault that I even know about Wagner. It's her fault that I got thinking of diamond mining as art. I never paid any attention to art until I started hanging around with her, and then just when I started seeing where the art was in what I did, she snorted and took off with my bedsheet. You can see why I took it as a slap in the face when she started escorting artists through Neptune's rings.

I also took it badly when, before we'd even had a final powwow to formalize our ending, she started parading around with a reactor tech who had the insufferable name of Acer Laidlaw.

Acer.

He, apparently, was everything I was not. I am hairy and unkempt; he is clean-shaven, razor-cut. I am heavily built; at one meter seventy-five I weigh an even hundred kilos. Acer is half a head taller and built like a caricature of an athlete: long, ropy muscles, broad shoulders, muscular hands with long fingers. Acer can sing. I cannot, at least not on key. He had a steady and well-paid job. I lived on the vagaries of intuition.

It wasn't Acer Laidlaw's fault that I hated him. My limited interactions with him were civil enough, and he never made the mistake of gloating—or worse, trying to commiserate with me over losing Valerie. In a jaundiced and bitter way I was grateful to him for this. If he had turned out to be the kind of asshole the name Acer implied, I would have had to crack him in the mouth. After that, I would have had to quit talking to Valerie. As it was, I stayed on half-decent terms with Valerie, too. She was kind to me, and I tried not to let it show that I'd only fallen in love with her when she walked out.

Things could be worse, I told myself again. I could be competing with Valerie to get vid tourists and snob directors to the good spots on the Arago Perimeter or Galatea's resonance points with the Adams arcs. This is what I told myself as I watched hockey games from Luna and wondered how I would pay the note on my ship if GGRI let my contract expire.

The answer, which was as clear in the morning as it had been the night before, was that I wouldn't. Nobody could afford the note on a ship that specialized if they weren't doing what it was designed for. If GGRI didn't renew my contract, I'd have to sell the ship to some lunatic who wanted in the gas-mole business because he'd read some romantic garbage about it when he was a kid. Then I could do one of a few different things. I could stay at Roderick, go in-house at GGRI, and pilot the giant hydrogen harvesters that we gas-moles derisively called bladders. I could hire on at a

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

pretty good salary working in the zero-g shipworks in Roderick's hub. Or I could go back in-system and slip into the easy routines of asteroid mining, which is what I had been doing before I got into the gas-mole business because I'd read some romantic garbage about it when I was a kid. I'd been a 'roid cutter for six years, saving like a miser to make the down payment on *Eightball*. Now I was thirty-five, with some equity in my ship and piloting skills on several different exotic-atmosphere craft. I was employable. Maybe it was time to get out of the gas-mole business after all. With what I had in *Eightball,* I could file mining claims on two or three of the more difficult rocks, maybe the ones that rode outside the ecliptic. Go freelance, pick up a used mining ship like Valerie had and use it like it was meant to be used.

Damn Valerie, anyway. She was right. It was work. I was a working man.

I pulled up my financial records and had Bunny do the math. During my current contract, I'd run forty-two drops, a little above average. GGRI always said that a drop every other day was standard, but maintenance backlogs usually kept us down to thirty-eight or forty in a ninety-day contract. Before my current empty streak, I'd been doing fairly well this quarter; two weeks before I'd even considered putting money down on a new Deep Diver sensor array. Good thing I hadn't. As of right then, with only seventy hours remaining on my contract, I was running 4.7 percent under the break-even point. Either my next mission would return 5 percent on a full quarter's expenses, or I'd be looking for another job.

There was a knock on my door while I was eating breakfast. I was in a relatively good-natured funk of resignation when I opened it to see Valerie. "Val," I said. "To what do I owe, et cetera." We stayed on pretty good terms, me and Val.

"I hear you're running a shortfall this quarter," she said, still in the doorway. I asked her in and tried not to slam the door behind her.

"I'm a little behind," I admitted.

"How many more drops will you get in?"

"One. I could do two, but union regs won't allow it."

She considered, and that little line between her eyebrows appeared and disappeared. "Swear to me that you will not feel belittled if I offer you a way to make your balance whether you make your balance or not."

"I don't have that much pride, Val. You know that as well as anyone."

"Well, with you artists it's hard to tell," she said, and I had to work real hard not to walk out the door and leave her there to be smug by herself.

Instead I said, "It's better that you're not a gas-mole if you're not going to appreciate the beauties of it," and both of us were able to laugh. But I was still angry. Art is about failure, and suffering, and survival. Gas-moles know quite a bit about all of those things. We dance with gravity. Anything that involves intuition is art, and mining diamonds on Neptune is all about intuition. Unfortunately my intuition had been disastrously off base these last two weeks, which meant I had to sit in my own room and be patronized by my ex-lover.

"GGRI is doing a PR vid over the next few days," Valerie said. "Board members came all the way out to have themselves filmed walking around

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

Roderick and oohing at the rings. Since I was already here, they contracted me to fly, and since this is going to be a bigger production than most of what I do, I need crew."

"I don't know anything about vid, Val," I pointed out.

"You don't have to. You fly, I'll take care of the vid logistics and VIP strokes. And," she went on, "the best part is that if you work this, it falls under the Other Services to the Company clause in your contract, which means that what they pay you goes on the plus side of your contract ledger."

"I'm 5 percent down. They aren't paying you that well."

She hesitated, but only for a moment. "No, they're not. But the fee would knock it down under two, I bet, and then you wouldn't have to get the crown jewels to break even."

I thought about it. I refrained from asking her why she hadn't offered the job to Acer. I refrained from asking her why she didn't pilot the job herself. Then I said no.

"Thanks, Val. I know you're thinking of me, and it's really generous, and yeah, I'm in a little trouble, but see, here's the thing. I don't know when I can schedule dock time in the next seventy hours, and I haven't even had *Eightball* checked out for maintenance issues. So I don't know when I can drop. If you count on me to pilot your shoot, I might end up having to back out, and I wouldn't want to do that to you. The fee for the shoot isn't going to put me positive by itself, so I've got to make the drop first priority."

It was all true, every word, but behind it was a simple obstinate desire not to let Val help me. I admit it.

She looked me in the eye, and she knew it too.

"Okay, Stig," she said. "You're right."

"I mean it," I said. "Thanks. I appreciate you thinking of me." Which I did, sort of.

"Good luck," she said, and let herself out.

Things went from bad to worse when I checked in on *Eightball* at the company shop. Bunny had warned me that the news was not going to be all good, but Bunny is always kind of morose and gloomy about technical things. For an AI, he's kind of arty and philosophical. So when I found Farouk the shop tech and asked when I could drop again, I was expecting him to put me on the Hokey-Pokey, which is what us gas-moles call the dynamic of repeatedly walking down to the shop only to be told to come back later. I had once worked an asteroid called the Football with an old guy from Schleswig-Holstein who sang the Hokey-Pokey in German: *Man tut den Hokey-Pokey und man schuttelt ihn heraus*. . . . I could never forget the song after that, and it had become my own little contribution to Roderick Station slang.

So twenty-four hours, I was figuring, which was okay since no matter what happened GGRI wouldn't let me squeeze two drops into the next seventy hours. If they did, and something happened, the union would have a fit.

"You got reactor trouble," Farouk said. "I have to ground you."

I remained calm. "For how long?"

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

He shrugged. "If it turns out you need a new reactor, could be two weeks."

Cool as could be, I said, "And what if I don't need a new reactor?"

"Well, I'll know by the end of the day. Could be you'll be dropping again in no time," he said, and chucked me on the shoulder as he walked away. This was Farouk's way of telling you to get out of his shop if you ever wanted your ship cleared for flight again.

So I got. I headed back to my room and sat fuming on the side of my bed while Bunny did his best not to point out that he'd told me so.

Even if I could afford a new reactor, which I couldn't, I had to get at least one more drop in on this contract or I'd have no way of coming out ahead. And if I didn't need a new reactor, the maintenance expense would make it that much harder for any but the most outrageously successful drop to bring me out in the black. Oy. There was only one thing to do.

"Farouk," I said later that day. He gave me the hairy eyeball, and I held up my hands. "I know. I know. You know I know. But it's important."

"Tell me," he said.

"I'm running a wee bit in the red this quarter." He nodded like he'd already known that. "So there are two things. First is, I really cannot need a new reactor. So I need some good news on that front, okay? Help me out here. Please, Farouk."

"You don't need a new reactor," he said.

It took me a minute to figure out that he was serious. "Really?"

"Really. Acer ran the check, and structurally everything's okay. But output is way down, both raw heat and impulse. You haven't changed your fuel in how long?"

I couldn't remember. I was still hearing Acer's name ricochet around the inside of my head. He had run the diagnostic on my reactor! It wasn't enough he had to steal my girlfriend, he had to get his hands all over my ship too. Perfectly normal, I told myself. He's a reactor tech. He works on reactors. There is a reactor in my ship. Perfectly normal.

Farouk saw me not answering him, but he didn't understand why. "Before I took over here," he said, referring to the last change of my reactor fuel, and I knew it was true.

"How come you never reminded me?"

"You can read the logs as well as I can," he said. "You're way overdue for fuel insertion, and you can't drop until it's done."

"When will it be done?"

"Day after tomorrow."

"Farouk," I said. "Do you mean forty-eight hours from right now?"

"Give or take," he said.

"Farouk," I said. "Forty-eight hours from right now I will have less than twelve hours left on my contract. I cannot make a drop in twelve hours, even assuming your monkeys here get everything done when they say they will." I could feel myself starting to lose my temper, and I fought it, but it wasn't easy. "If I don't make another drop, I don't make my contract. If I don't make my contract, I can't make the note on my ship. If I can't make the note on my ship I need to get another job either piloting bladders or 'roid cutting in-system.

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

"But all of this misses the point anyway. If I have a fuel-insertion expense this quarter, I'd have to come back with a three-kilo diamond to make the quarter. We both know this is not going to happen, do we not?"

It is never good to yell at Farouk. He stood calmly looking me in the eye the whole time, and even as the words were coming out of my mouth I was telling myself to shut up, shut up, don't make things worse than they already are. Except they couldn't get worse, so my mouth kept running.

"You probably won't find a three-kilo diamond, no," Farouk said.

"So we're at an impasse here. This repair means that I won't make my quarter. Period."

Looking uncomfortable, Farouk nodded. "Nothing I can do," he said. "Acer's already getting into it up in Bay 3."

Acer again. Bad enough I wasn't going to make my quarter; also I had to sit by while Acer got *Eightball* shipshape for whoever I would have to sell it to.

An inexcusably jealous paranoid fantasy swept over me. In that moment I was certain that my reactor was fine. Acer had flagged the diagnostic so he could make sure I didn't make my quarter. He knew I'd leave Roderick if I wasn't a gas-mole, and that bastard, he was going to make an offer on *Eightball*. I was sure of it. He wanted me off Roderick because he knew that Valerie would come to her senses sooner or later. She would recognize him for the shallow plaything that he was, insufficient for a substantial woman like her—and she would come back to me.

That was when I caught myself and knew I was way off base.

"Besides," Farouk said, "the union would have my ass if I let you go out with your reactor running tepid the way it is."

"They haven't bothered you for the last twenty times you checked me out without changing the fuel," I said.

This was something new. I had something on Farouk, or more accurately on his predecessor since he had only been head shop tech for a couple of months. I could see him working this over in his mind.

"How about if you do the repair and just bill it next week?"

"I can't do that," he said. "Inventory tracking, there's no way around it. Especially reactor fuel. I have to personally sign it out."

"And you can't just sort of forget to process the order so they don't know whose ship you put it in?"

"Come on, Stig," he said. "I have to log the spent fuel too. What am I supposed to say?"

"Okay, you're right. Sure." I thought hard. "There's only one thing to do, then. I have to ask you not to fix my reactor."

"But I already processed the work order."

"Farouk, please, I'm asking you for a favor. Pretend it was a mistake. Blame the readouts or something. Please. I have to make a drop tomorrow or early the day after if I'm going to get back and be logged in before my contract ends. You know GGRI is real careful about that."

"Do you know what you're asking me to do?" he said. "You want me to send out a substandard reactor, and if it screws up and you die, you want me to blame whoever had this job before I did."

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

"His name was Elliott Roundtree," I said. "No one will be surprised that he made a mistake like that."

Later that night Valerie confronted me in the corridor outside the billiard hall. "Swear to me you're not going out just because you're having some kind of reptilian macho reaction against Acer working on your ship."

"What?" I said.

"He came to me and told me what Farouk told him about what you said today," she said.

"He came to you?" I said incredulously. "What, is he worried about me? What a prince."

"As a matter of fact, he is. I know you're never going to like him, Stig, but he's a good guy."

"I'm sure he's wonderful," I growled. "And I'm fine, and *Eightball* is fine. Everything's fine. I'm going to make another drop and find a diamond the size of my head, and then I'll retire in-system and make a living explaining the Cassini Division to Martian tourists."

She stood there looking at me. People walked by, and I took a selfish pleasure in the fact that they were seeing Valerie and me together.

"Listen, Val. I have been a gas-mole for most of my adult life. It is uncertain, lousy work, and I take my life in my hands every time I make a drop. But I don't have any school, and every cent I have is tied up in my ship, and I don't want to do anything else. It's my work, and you go ahead and laugh, but when I get it right it's art."

She didn't laugh. More people walked by us into the pool hall. "I got Acer to work the VIP shoot with me," she said after a minute.

"Good," I said. "Glad you found someone." Then I figured out why she was telling me. "He's not licensed, is he?"

Valerie shook her head.

"You're going to fly the GGRI board into the rings with an unlicensed pilot?"

"Well, you said no. You're happy here, that's fine, Stig, but I want out. If this shoot goes well, the board will know me. I can use that. I can get into in-house filming, public relations, something. Anything's better than this right now. I want to get back in-system. My brother's on Mars, I haven't seen him in five years. I'm not cut out for the station life. I miss sunlight." She lifted her hands, let them drop.

Listening to her talk, I could feel myself dividing down the middle of my mind. One hemisphere believed her, sympathized, understood the desire to be closer to family and the rest of humanity. Life was tough out here in the trans-Kuiper.

The other side was thinking, Do you think I don't remember that you could pilot this little excursion and get someone else to do the schmoozing? You're not fooling anyone, Val, you treacherous bitch. Don't want work so much any more now that you're a little closer to art, do you? Or maybe it's just that you don't want work, period. Management seems like a good solution to that problem. *You're happy here, that's fine,* she'd said, but what she meant was: *I'm looking for something better. Something that*

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

you never were interested in. That's why I walked out with your bedsheet and sashayed off to find Acer Laidlaw.

Then that deranged half split down the middle and I became suddenly and mortally certain that Valerie had asked me to pilot the shoot as some sort of test, and that her selection of Acer was to let me know that I had missed my last chance to recapture her.

"Look, I need to get prepped," I said, and left her standing in the corridor.

Thirty hours later I ghosted away from Dock Seven and goosed *Eightball* toward the austral pole of Neptune. I was sure there were diamonds there. The storm I'd sampled three days before was still going on, and had reached the upper atmosphere. It was a pale oval smudge on Neptune's fine Caribbean blue. Long storms, especially big long-lasting convection storms, create all kinds of little stormlets around them. I figured that the halo of this storm would be full of smaller surges and upwellings. All I had to do was pick the right one. Simple. Before the last two weeks, I had consistently done it for eleven years.

I tried not to think too much about the reactor, which Farouk said was performing at something like 70 percent. It powered the external current that allowed *Eightball* to survive in Neptune's lower atmosphere as well as the ship's thrusters, and if it was under the weather that meant that I had much less time to fish around the edges of the storm.

There were, of course, ways I could conserve energy and forestall testing the reactor before I had to. One of those ways involved letting the atmosphere itself brake me instead of dropping in and impulse-braking.

To do that, I needed a strong updraft and a strong downdraft close together, which was why I was letting *Eightball* drop toward the edge of the big polar storm. I flashed past Galatea on the way in, kind of for good luck. She was my good-luck moon: Galatea, like Pygmalion's statue brought to life by Aphrodite. When I watched her shepherding those arcs of ring around Neptune, I thought: There is nothing like you in the solar system. And I longed for Aphrodite's intervention.

I know, the moon isn't named for the statue. But don't ask me about the other Galatea. That's never been a story I needed to hear.

Things started to rattle as soon as I dropped through the hydrogen shell and hit the first methane layers. By the time I'd reached the depth where I normally expected water clouds, *Eightball* was bouncing so much I couldn't focus my eyes on the readouts. "Bunny," I said. "Soon as we fall off the edge of the storm, kick up the conductors and kill the exhaust."

"So mote it be," Bunny answered.

With the reactor the way it was, I had to fold in the main exhaust now if I wanted to have the conductors up to speed by the time I got close to the adamapause. Also, I was figuring on needing a little directional impulse on the way down, and I thought I'd save my heat for that. It wouldn't do any good to pull off this fine storm-surf if I ended up super-condensed hydrocarbons at the end of it. Oh, the irony: the gas-mole become diamonds.

It occurred to me, not for the first time, that I might at some point have

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

scooped up diamonds whose carbon atoms had once belonged to colleagues. Also that a colleague might some day scoop up beautiful crystalline fragments of me.

Then I suffered a vision of Acer Laidlaw piloting *Eightball* back to Roderick Station with a hold full of atoms that had once been mine, and gritted my teeth so hard I cracked a filling. There is no depth to which the jealous mind will not sink.

No, I said to myself. That couldn't happen. If you die down here, *Eightball* goes too. See? Much better.

I blew the sensor array when the edge storm got within fifty kilometers, and all of the little gyro-stabilized spheres followed after me as I went over the edge of this ten-thousand-kilometer Niagara.

First, *Eightball* started bucking so hard that I couldn't even read my retinal display. Then Bunny kicked on the conductors and warned me that they probably wouldn't run past the 70 percent I'd been promised. Then he warned me that if the conductors were running at 70 percent, I'd have next to no impulse available to arrest my free-fall toward the crushing depths of Neptune's atmosphere. "Yeah, Bunny," I said. "I know. You're the computer; you make sure that the conductors leave me some directional heat when I need it."

"All I'm saying," Bunny said, "is that timing will be extremely important at the end of this maneuver."

"I am forever in your debt, et cetera. If you're so worried, why don't you just let me know when to start the roll?"

I had done this before: fall off the edge of a storm, then turn over just as the pressure began to spike so that the conductors created a cushion of atmosphere below. The deceleration sometimes knocked me out, but Bunny always kept it together until I came around. All it took was timing and the correct application of an impulse burn to roll the ship over so the conductors would slow the fall and start the loop.

"Adamapause at five hundred kilometers," Bunny said.

"Roll at two. Conductors are at seventy now?" I asked.

"They are."

"Can you goose them to eighty when we roll?"

"Probably," Bunny said.

"We will die if you don't," I said.

"I'll do what I can, Stig." Bunny was exasperated, I could tell, and suffering his typical pessimism when it came to technical obstacles.

Four, three, two, and I blew a quick burn to roll *Eightball* over. Then I locked down all of the impulse nozzles. They were a prime cause of integrity failure at high pressures, and I ran the check twice, and then Bunny amped up the conductors and the last thing I heard was a painful roaring in my ears.

I think I lost about ninety seconds. When I blinked myself back to awareness, *Eightball* was steady, nose pointed straight up and conductors running exactly hot enough to keep the ship suspended on a pillar of Neptunian atmosphere. We started to rise, and Bunny tipped *Eightball* into a standard cruising loop.

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

"External pressure twenty-seven Gpa," Bunny said.

A current buffeted the ship. I had to work at it, but I could focus on the readouts, and they showed the big storm as an endless wall immediately to our north. Three of my remote sensors had failed on the way down, but the seventeen remaining showed a flurry of smaller storms birthing on the perimeter of the big one. "Let's see," I said. My throat was dry, and I rummaged under the seat for a water bottle. "What looks likely here, Bunny? Where are the three-kilo diamonds today?"

Bunny pointed out a temperature bulge along the storm front, some way to the east. "Right," I said. "Good spotting."

"Local pressure there is close to thirty-two Gpa," Bunny said.

"What's your guess when it breaks open?"

"You never pay attention to what I say anyway."

"Just tell me or I'll sell you along with the ship," I said.

"Pressures greater than thirty-five Gpa would not be surprising."

Eightball could handle thirty-five Gpa with conductors running full. I'd never done it, but I knew guys who had. What I didn't know was how much margin for error there was there. "Bunny," I said. "How much can we get out of the conductors?"

"I told you," he said. "It would be ill-advised to try for more than 70 percent."

Which put the safe threshold somewhere between thirty-one and thirty-two Gpa. If I couldn't get any more out of the conductors, and the temperature bulge popped at thirty-seven or thirty-eight, Acer Laidlaw would get a chance at my atoms—but at least he wouldn't have my ship to do it in.

"Amp the conductors up all the way," I said.

"The reactor might shut down."

"No it won't. Just test them. Amp up, verify full current, then ease back to seventy."

Bunny didn't say anything.

"Bunny, I don't want to die," I said. "I just want to see what we've got. The reactor won't shut down on a one-second test. Those shop guys are a bunch of chickenshits, you know that."

There was a pause. Then the conductor readout swung from seventy to one hundred, held for a blink, then fell back to seventy. *Eightball* scooted ahead in its loop as the pressure gradient around it grew briefly sharper.

"Any change in reactor values?" I asked, sounding calmer than I felt.

"As long as you don't want any impulse at the same time," Bunny said, "the ship can handle full conduction, possibly for as long as a full minute."

"Mighty fine," I said. "Take us over to that bubble."

The remote sensors picked up a temperature spike at the near end of the bubble, which generally meant that the first rupture would occur there. I floated *Eightball* over near it and waited off to the side, figuring to ride the expanding new storm front up and out of the dangerous part of Neptune. If the storm blew like most near the pole tended to, I could figure on a four-hour trip to make it above the water clouds. The conductors wouldn't work for the entire trip; they weren't much good below densities in the neighborhood of half a gram per cubic centimeter. So at some point

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

I'd need to throttle up the reactor again and heat some hydrogen. My hydrogen reservoirs were nearly full because I'd used so little exhaust to get down to the adamapause. No problem there. I just had to hope that the reactor would give me enough thrust to achieve escape velocity. Twenty-three kilometers per second. That wasn't so fast, and like I had told Bunny, shop techs were chickenshits, afraid of union stewards and obsessed with the letter of regulations. I didn't figure I'd have any trouble.

There was a ping from the sensor array. "Storm front coming," Bunny said, and the external pressure jumped to thirty-one Gpa.

That was just high stuff blowing in front of the real meat of the convection, which would be coming at the next pressure jump.

Eightball rocked, and pressure shot up to thirty-six. Bunny had the conductors running full before I had a chance to tell him, and as we rocketed along the edge of the front I toggled a close analysis of temperature bands. "On my mark, Bunny," I said, watching the display.

Thirty-seven Gpa.

A gout of condensate overtook us, and the ship bucked harder. Six thousand K. That's the one, I told myself. From all the way down straight to me, and barely cooled along the way. At thirty-seven Gpa there's no way for diamonds to boil or sublimate.

"Pop the chamber," I told Bunny.

There was a thunk. I swear it.

"Chamber filled," Bunny said, and I put *Eightball* through a turn that was maniacal by conductor-steering standards, hotdogging just a little because I was sure. Sure I heard a thunk.

"Did you hear that?" I asked Bunny.

"It could have been lots of things," he answered.

"Like what?"

"Stray heavy metals. You know this. Tungsten."

"Tungsten on Neptune!?" I nearly shouted. Once a gas-mole had come back with a knuckle-sized chunk of tungsten in her chamber. The geologists were still arguing about it. "Tungsten on Neptune!? Measure the goddamn density, Bunny!"

We rocketed up on the welling storm, pressure dropping faster than temperature until I had to cut the conductors off and burn some exhaust to get clear of the storm. The reactor's output faltered here and there, but I was making twenty-three km/s, and that was all that counted.

"Density in the chamber two point four grams per cubic centimeter."

Two point four? "Jesus," I said. "Are you sure?"

"I don't randomly quote figures, Stig," Bunny said peevishly.

"Two point four," I said with lightning all around me, still climbing. The only time I'd ever had a load come in at two point four was the quarter I'd turned the Keystone profit. Unless I was carrying all hydrocarbons or freak liquid hydrogen or goddamn tungsten, my quarter was made. I could keep my job. I could keep my ship.

"Stig Davidsohn," a voice said over my external comm.

"Farouk?" I said.

"Mayday, Stig. This is serious."

"My reactor's reading okay, Farouk. I've got things under control here."

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

"It's not you. Seems that Acer's got himself in trouble."

"Is Val okay?" It occurred to me in passing that if Acer had gotten Val killed because her miner was too much ship for him, I would have to torture him to death.

"She's fine. She's on Galatea with the crew."

Unlicensed pilots, I thought. Unlicensed reactor-monkey pilots who are showing off for their Valkyrie girlfriends who they don't deserve anyway. Unbelievable.

"You're sending *me* a Mayday? What can I do?"

"I don't know, Stig, but nobody up here can do anything. You and them are on the wrong side of the planet. By the time anyone here can get there, they'll be long gone."

"What did Acer do?"

"He didn't do anything. He was letting one of the Board poobahs pilot into Galatea. Val and the vid crew had already landed separately, and Acer's AI fired a retro burn right past them. It kept burning for fifteen minutes until Acer could override it, and now the ship is falling right into that storm you're coming out of. I'm feeding you the trajectory now."

It came up on my retinal. I was already above the miner, which was falling in a shallow arc into the big storm I'd surfed down early that morning. Miners like Valerie's were designed to work in high atmospheres, but the pressures inside that storm would tear it apart.

"Did Val call you?" I asked.

"Yes."

She hadn't called me.

"You're a good pilot, Stig," Farouk was saying as I tried to think of what I could do, "but remember you have no wiggle in your reactor performance." I didn't respond; I was already falling back toward the crashing miner.

"Are you listening?" Farouk said.

There was one thing.

I didn't want to do it. It probably wouldn't work anyway, probably all of us would die if I tried it, and I didn't want to risk that on Acer Laidlaw and a shipful of the guys who made money off me risking my life three times a week.

Another myth about gas-moles is that we're all violent frontier wackos willing to kill for anything. Stories abound of gas-moles killing each other over good drafts at the edge of a fresh storm, or over love, or money. Any story they used to tell about gold prospectors they tell about us. And, as I've said, I can't speak for the profession, but I'd be lying if I didn't admit that there existed the briefest of moments when I thought that the world would be better off without Acer Laidlaw—not to mention the GGRI board—and that if all of them were subsumed into the stormy interior of Neptune I might have a chance again with Valerie. I admit it.

But I made the burn back down into Neptune's atmosphere, and I got Acer's attention on the way in.

"Acer."

"Stig?"

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

"Saint Stig on his spherical black horse of the apocalypse," I said. "Are you aware that the ship you're in has electromagnets to keep off the radiation?" All the miners did. They were designed for long outings with no atmospheric protection.

"Okay," Acer said. I could tell that he didn't care about electromagnets. He was going to die, and he didn't want to talk to me while he was doing it.

"Okay is right, reactor monkey. If you want to live, you'll find a way of changing the polarization of those magnets sometime in the next couple of minutes."

Brief pause. "Why?"

"Because I am going to try to save you and our illustrious board of directors," I said, "and I can only do it if your magnets are polarized opposite mine. Get it? We need to get together."

I made visual contact with the miner. It was falling fast, but I caught up to it easily enough. The problem was, with my reactor feeling poorly there was no way I could boost both of us out of Neptune's gravity well. I couldn't even arrest the progress of our combined tonnage, I didn't think, although I was sure as hell going to try before I got desperate.

"Magnets, Acer," I said. "Are they switched yet?"

There were voices in the background on his end. Someone else came on the channel. "Who is this?"

"Stig Davidsohn. Gas-mole."

"Do you have a way to transfer us to your ship?"

"Nope," I said. "I have a better idea."

"Oh, for God's sake," the anonymous board member said, and broke the connection.

I was running parallel and a little below the miner now, keeping a hundred meters away. Wispy currents of methane belched up from the storm began to rattle both ships. I called Acer again. "Time's running out," I said. "I'm not even sure I can get out now." It was true. Bunny was trying to get my attention by flashing dispiriting numbers about reactor performance on my retinal display.

"Magnets are just about . . . hold on," Acer said. "Okay. They're switched."

"Where are they?" I asked.

"Where are what?"

"The magnets, Acer. Where are they on the ship?"

"Oh," he said. "In the rear, about a third of the way up from the engine nozzles."

Close to the center of mass, then, especially if the fuel tanks were nearly empty. "Good. Get everyone on board as far forward as you can, and if you've got oxygen, distribute it. Fast."

In sixty seconds he let me know that it was done. "Can you control the magnets from where you are?" I asked.

"I can."

"Amp 'em up," I said, and did the same to my conductors.

Eightball snapped around until the nose was pointing almost straight down into the storm and rose upward as if on a line, banging hard into

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

the underside of Val's retrofitted miner as the two ships' magnets drew each other close. The intervention of Aphrodite, I thought sourly. Perfect.

"You okay there, Acer?" I called.

"We're all still here," came the reply.

"All right then, hold on for a minute while I see if you were right about my reactor trouble."

"Jesus," he said, and I got a wicked thrill out of the fear in his voice. I couldn't help it.

I wound the conductors down to about 20 percent, which I figured was enough to keep the two ships locked together, and fired up the hydrogen exhaust for all it was worth. Our descent slowed, but only a little. "Is there any more, Bunny?" I said. "Turn off the lights. Shut down the heat. Put it all in the exhaust."

Still we didn't come close to arresting our descent.

"Bunny," I said. "Are you thinking what I'm thinking?"

"I have no idea what you're thinking," Bunny said.

I was thinking this: a thousand cubic meters of material, compressed at something like thirty-six gigapascals and a temperature of six thousand degrees Kelvin, might well offer significant thrust if directed out into a pressure of something less than one ten-thousandth of a gigapascal.

If, the standard rejoinder went, it didn't destroy my ship upon its release.

"I'm thinking," I said with great unhappiness, "that we might be able to ride up out of here on my diamonds."

"I hope you aren't serious," Bunny said, and Acer, who was overhearing this on the open channel, added, "What?"

"Strap yourselves in there, Acer," I said. "I don't know how bumpy this ride will get." Or how long it will last, I added to myself as I broke the connection. "Bunny, get ready to crack the vac chamber." Outside, the weather was getting heavier. *Eightball* wouldn't have any problem as long as the reactor held out enough for the conductors to work, but the miner would be shaken to pieces pretty damn soon, or crushed with all the people in it like bugs under a rock.

"Preparations complete," Bunny said morosely. "On your order."

I took a deep breath. "Okay. Give us a little oomph."

A deafening roar sent tremors though the ship. I tried to keep my attention on the retinal, which showed a slowing of our descent. At this angle, we would skip off the edge of the storm and be sucked down faster than we would have if we'd fallen straight into it. "A little more, Bunny," I said. The roar got louder, and the ship vibrated so hard that I had to close my eyes and let Bunny take care of flying. I could only guess what it was like for the passengers on Valerie's miner. If it was still there. For all I knew I could be flying along with only its electromagnets and a few stray bits of steel clinging to my hull.

I toggled the comm channel. "Acer, you there?"

"We're here," he answered. "What are you doing?"

"The dumbest goddamn thing I've done in years," I growled, and then I had Bunny open the vac chamber a little wider.

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

I never did manage to boost us up very high, but I leveled out the descent and got us a little altitude. By the time we'd made half a revolution of beautiful blue Neptune, there were rescue ships dropped from Roderick Station waiting for us.

Turned out there had been some kind of assassination plot originating in-system. They corrupted Val's ship AI using a virus riding on one of the board members' own ID badges. Crafty, but basically what you'd expect from disgruntled shareholders, which as anyone will tell you are more dangerous than mother grizzly bears.

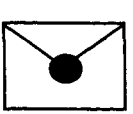
You will not be surprised to learn that I did not fulfill my quarterly contractual obligations to Gas Giant Recovery Incorporated. Or that when my unkempt ugly mug was briefly on every in-system vidscreen the board publicly decided that this one failure didn't offset my many years of service to the company. Bonuses came my way, as well as appearance fees for a startling variety of vid shows. In about a week it was over and I was just a gas-mole again.

Acer and Valerie left Roderick and went in-system. I don't know what they're doing now. I'm just about certain that they're doing it together, though. When he stepped off the rescue ship . . . it was an operatic scene, and I don't mean that pejoratively. Over his shoulder she looked at me, her eyes full of gratitude so pure and chaste it broke my heart to see it. I knew right then that all my clumsy efforts to recapture Valerie had been wasted. You can't fight the intervention of Aphrodite.

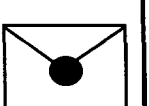
Me, I'm still here. I make drops. Sometimes I come back with diamonds. On the way back, if I've timed it right, I slow down as I'm passing Galatea and settle into one of the glittering arc segments that she shepherds around the planet. Being in the edges of a planetary ring is an experience like no other that I know. Fine mists of ice hang about you, and the ring looks like solid ground, like dirty snow. Any light source is scattered into millions of sparkles. Neptune is a pretty shade of greeny blue, and the stars are as beautiful in space as everyone says, but for my money there's no experience like ghosting along the fringe of a ring, looking at Galatea and saying, *There is nothing else like you. Nothing.* O

CUSTOMER SERVICE OR SUBSCRIBER ASSISTANCE

Please direct all changes of address and subscription questions to:



ASIMOV'S SCIENCE FICTION
P.O. Box 54033, Boulder, CO
80322-4033

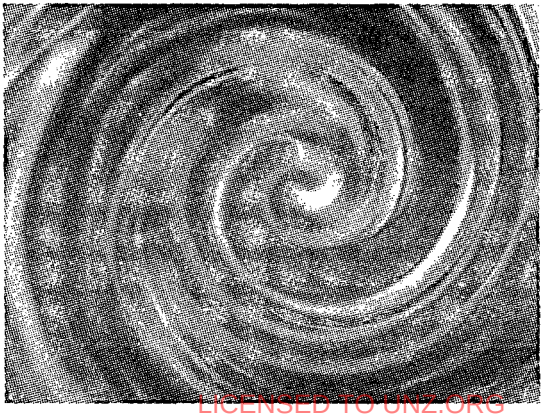


LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

CYCLE

Washing machine seven has fallen in love
with a little boy who feeds her quarters.
Across the floor he drags a heavy chair,
and clambers up. His belly presses, warm.
Counting quarters into round depressions—
five Washingtons, all upright staring left—
he shoves the slider home. Oh, joy!
Coins that taste of salty little boy sweat!
She swooshes water in; here hot, there cold,
spiral together, all the old tricks new
under his concentrated gaze, until
her lid must close, hiding her agitation.
Still, he leans against her, inhales chlorine.
And still she vibrates, work and love spinning
round and round and round.

—Bonita Kale



LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

The author's 2003 publications will include a novella collection entitled *Trujillo*, a short novel, *Louisiana Breakdown*, and a mini-collection of journalism and fiction entitled *Two Trains Running*. He brings to our own pages a haunting tale about what it means to be . . .

ONLY PARTLY HERE

Lucius Shepard

There are legends in the pit. Phantoms and apparitions. The men who work at Ground Zero joke about them, but their laughter is nervous and wired. Bobby doesn't believe the stories, yet he's prepared to believe something weird might happen. The place feels so empty. Like even the ghosts are gone. All that sudden vacancy, who knows what might have entered in. Two nights ago on the graveyard shift, some guy claimed he saw a faceless figure wearing a black spiky headdress standing near the pit wall. The job breaks everybody down. Marriages are falling apart. People keep losing it one way or another. Fights, freak-outs, fits of weeping. It's the smell of burning metal that seeps up from the earth, the ceremonial stillness of the workers after they uncover a body, the whispers that come when there is no wind. It's the things you find. The week before, scraping at the rubble with a hoe, like an archaeologist investigating a buried temple, Bobby spotted a woman's shoe sticking up out of the ground. A perfect shoe, so pretty and sleek and lustrous. Covered in blue silk. Then he reached for it and realized that it wasn't stuck—it was only half a shoe with delicate scorching along the ripped edge. Now sometimes when he closes his eyes he sees the shoe. He's glad he isn't married. He doesn't think he has much to bring to a relationship.

That evening Bobby's taking his dinner break, perched on a girder at the edge of the pit along with Mazurek and Pineo, when they switch on the lights. They all hate how the pit looks in the lights. It's an outtake from *The X-Files*—the excavation of an alien ship under hot white lamps smoking from the cold; the shard left from the framework of the north tower glittering silver and strange, like the wreckage of a cosmic machine. The three men remain silent for a bit, then Mazurek goes back to bitching about Jason Giambi signing with the Yankees. You catch the interview he did with Warner Wolf? He's a moron! First time the crowd gets

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

on him, it's gonna be like when you yell at a dog. The guy's gonna fucking crumble. Pineo disagrees, and Mazurek asks Bobby what he thinks.

"Bobby don't give a shit about baseball," says Pineo. "My boy's a Jets fan."

Mazurek, a thick-necked, fiftyish man whose face appears to be fashioned of interlocking squares of pale muscle, says, "The Jets . . . fuck!"

"They're playoff bound," says Bobby cheerfully.

Mazurek crumples the wax paper his sandwich was folded in. "They gonna drop dead in the first round like always."

"It's more interesting than being a Yankee fan," says Bobby. "The Yankees are too corporate to be interesting."

" 'Too corporate to be interesting'?" Mazurek stares. "You really are a geek, y'know that?"

"That's me. The geek."

"Whyn't you go the fuck back to school, boy? Fuck you doing here, anyway?"

"Take it easy, Carl! Chill!" Pineo—nervous, thin, lively, curly black hair spilling from beneath his hard hat—puts a hand on Mazurek's arm, and Mazurek knocks it aside. Anger tightens his leathery skin; the creases in his neck show white. "What's it with you? You taking notes for your fucking thesis?" he asks Bobby. "Playing tourist?"

Bobby looks down at the apple in his hand—it seems too shiny to be edible. "Just cleaning up is all. You know."

Mazurek's eyes dart to the side, then he lowers his head and gives it a savage shake. "Okay," he says in a subdued voice. "Yeah . . . fuck. Okay."

Midnight, after the shift ends, they walk over to the Blue Lady. Bobby doesn't altogether understand why the three of them continue to hang out there. Maybe because they once went to the bar after work and it felt pretty good, so they return every night in hopes of having it feel that good again. You can't head straight home; you have to decompress. Mazurek's wife gives him constant shit about the practice—she calls the bar and screams over the phone. Pineo just split with his girlfriend. The guy with whom Bobby shares an apartment grins when he sees him, but the grin is anxious—like he's afraid Bobby is bringing back some contagion from the pit. Which maybe he is. The first time he went to Ground Zero he came home with a cough and a touch of fever, and he recalls thinking that the place was responsible. Now, though, either he's immune or else he's sick all the time and doesn't notice.

Two hookers at a table by the door check them out as they enter, then go back to reading the *Post*. Roman the barman, gray-haired and thick-waisted, orders his face into respectful lines, says, "Hey, guys!" and sets them up with beers and shots. When they started coming in he treated them with almost religious deference until Mazurek yelled at him, saying he didn't want to hear that hero crap while he was trying to unwind—he got enough of it from the fuckass jocks and movie stars who visited Ground Zero to have their pictures taken. Though angry, he was far more articulate than usual in his demand for normal treatment, and this caused Bobby to speculate that if Mazurek were transported thousands

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

of miles from the pit and not just a few blocks, his IQ would increase exponentially.

The slim brunette in the business suit is down at the end of the bar again, sitting beneath the blue neon silhouette of a dancing woman. She's been coming in every night for about a week. Late twenties. Hair styled short, an expensive kind of punky look. Fashion model hair. Eyebrows thick and slanted, like *accents grave*. Sharp-featured, on the brittle side of pretty, or maybe she's not that pretty, maybe she is so well-dressed, her make-up done so skillfully, that the effect is of a businesslike prettiness, of prettiness reined in by the magic of brush and multiple applicators, and beneath this artwork she is, in actuality, rather plain. Nice body, though. Trim and well-tended. She wears the same expression of stony neutrality that Bobby sees every morning on the faces of the women who charge up from under the earth, disgorged from the D train, prepared to resist Manhattan for another day. Guys will approach her, assumimg she's a hooker doing a kind of Hitler office bitch thing in order to attract men searching for a woman they can use and abuse as a surrogate for one who makes their life hell every day from nine to five, and she will say something to them and they will immediately walk away. Bobby and Pineo always try to guess what she says. That night, after a couple of shots, Bobby goes over and sits beside her. She smells expensive. Her perfume is like the essence of some exotic flower or fruit he's only seen in magazine pictures.

"I've just been to a funeral," she says wearily, staring into her drink. "So, please. . . . Okay?"

"That what you tell everybody?" he asks. "All the guys who hit on you?"

A fretful line cuts her brow. "Please!"

"No, really. I'll go. All I want to know . . . that what you always say?"

She makes no response.

"It is," he says. "Isn't it?"

"It's not entirely a lie." Her eyes are spooky, the dark rims of the pale irises extraordinarily well-defined. "It's intended as a lie, but it's true in a way."

"But that's what you say, right? To everybody?"

"This is why you came over? You're not hitting on me?"

"No, I . . . I mean, maybe . . . I thought. . . ."

"So what you're saying, you weren't intending to hit on me. You wanted to know what I say to men when they come over. But now you're not certain of your intent? Maybe you were deceiving yourself as to your motives? Or maybe now you sense I might be receptive, you'll take the opportunity to hit on me, though that wasn't your initial intent. Does that about sum it up?"

"I suppose," he says.

She gives him a cautious look. "Could you be brilliant? Could your clumsy delivery be designed to engage me?"

"I'll go away, okay? But that's what you said to them, right?"

She points to the barman, who's talking to Mazurek. "Roman tells me you work at Ground Zero."

The question unsettles Bobby, leads him to suspect that she's a disaster groupie, looking for a taste of the pit, but he says, "Yeah."

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

"It's really . . ." She does a little shivery shrug. "Strange."

"Strange. I guess that covers it."

"That's not what I wanted to say. I can't think of the right word to describe what it does to me."

"You been down in it?

"No, I can't get any closer than here. I just can't. But . . ." She makes a swirling gesture with her fingers. "You can feel it here. You might not notice, because you're down there all the time. That's why I come here. Everybody's going on with their lives, but I'm not ready. I need to feel it. To understand it. You're taking it away piece by piece, but the more you take away, it's like you're uncovering something else."

"Y'know, I don't want to think about this now." He gets to his feet. "But I guess I know why you want to."

"Probably it's fucked up of me, huh?"

"Yeah, probably," says Bobby, and walks away.

"She's still looking at you, man," Pineo says as Bobby settles beside him. "What you doing back here? You could be fucking that."

"She's a freak," Bobby tells him.

"So she's a freak! Even better!" Pineo turns to the other two men. "You believe this asshole? He could be fucking that bitch over there, yet here he sits."

Affecting a superior smile, Roman says, "You don't fuck them, pal. They fuck *you*."

He nudges Mazurek's arm as though seeking confirmation from a peer, a man of experience like himself, and Mazurek, gazing at his grungy reflection in the mirror behind the bar, says distractedly, weakly, "I could use another shot."

The following afternoon Bobby unearths a disk of hard black rubber from beneath some cement debris. It's four inches across, thicker at the center than at the edges, shaped like a little UFO. Try as he might, he can think of no possible purpose it might serve, and he wonders if it had something to do with the fall of the towers. Perhaps there is a black seed like this at the heart of every disaster. He shows it to Pineo, asks his opinion, and Pineo, as expected, says, "Fuck I don't know. Part of a machine." Bobby knows Pineo is right. The disk is a widget, one of those undistinguished yet indispensable objects without which elevators will not rise or refrigerators will not cool; but there are no marks on it, no holes or grooves to indicate that it fits inside a machine. He imagines it whirling inside a cone of blue radiance, registering some inexplicable process.

He thinks about the disk all evening, assigning it various values. It is the irreducible distillate of the event, a perfectly formed residue. It is a wicked sacred object that belonged to a financier, now deceased, and its ritual function is understood by only three other men on the planet. It is a beacon left by time traveling tourists that allows them to home in on the exact place and moment of the terrorist attack. It is the petrified eye of God. He intends to take the disk back to his apartment and put it next to the half-shoe and all the rest of the items he has collected in the pit. But that night when he enters the Blue Lady and sees the brunette at

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

the end of the bar, on impulse he goes over and drops the disk on the counter next to her elbow.

"Brought you something," he says.

She glances at it, pokes it with a forefinger and sets it wobbling. "What is it?"

He shrugs. "Just something I found."

"At Ground Zero?"

"Uh-huh."

She pushes the disk away. "Didn't I make myself plain last night?"

Bobby says, "Yeah . . . sure," but isn't sure he grasps her meaning.

"I want to understand what happened . . . what's happening now," she says. "I want what's mine, you know. I want to understand exactly what it's done to me. I *need* to understand it. I'm not into souvenirs."

"Okay," Bobby says.

"'Okay.'" She says this mockingly. "God, what's wrong with you? It's like you're on medication!"

A Sinatra song, "All Or Nothing At All," flows from the jukebox—a soothing musical syrup that overwhelms the chatter of hookers and drunks and commentary from the TV mounted behind the bar, which is showing chunks of Afghanistan blowing up into clouds of brown smoke. The crawl running at the bottom of the screen testifies that the estimate of the death toll at Ground Zero has been been reduced to just below five thousand; the amount of debris removed from the pit now exceeds one million tons. The numbers seem meaningless, interchangeable. A million lives, five thousand tons. A ludicrous score that measures no real result.

"I'm sorry," the brunette says. "I know it must take a toll, doing what you do. I'm impatient with everyone these days."

She stirs her drink with a plastic stick whose handle duplicates the image of the neon dancer. In all her artfully composed face, a mask of foundation and blush and liner, her eyes are the only sign of vitality, of feminine potential.

"What's your name?" he asks.

She glances up sharply. "I'm too old for you."

"How old are you? I'm twenty-three."

"It doesn't matter how old you are . . . how old I am. I'm much older than you in my head. Can't you tell? Can't you feel the difference? If I was twenty-three, I'd still be too old for you."

"I just want to know your name."

"Alicia." She enunicates the name with a cool overstated precision that makes him think of a saleswoman revealing a price she knows her customer cannot afford.

"Bobby," he says. "I'm in grad school at Columbia. But I'm taking a year off."

"This is ridiculous!" she says angrily. "Unbelievably ridiculous . . . totally ridiculous! Why are you doing this?"

"I want to understand what's going on with you."

"Why?"

"I don't know, I just do. Whatever it is you come to understand, I want

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

to understand it, too. Who knows. Maybe us talking is part of what you need to understand."

"Good Lord!" She cast her eyes to the ceiling. "You're a romantic!"

"You still think I'm trying to hustle you?"

"If it was anyone else, I'd say yes. But you . . . I don't believe you have a clue."

"And you do? Sitting here every night. Telling guys you just got back from a funeral. Grieving about something you can't even say what it is."

She twitches her head away, a gesture he interprets as the avoidance of impulse, a sudden clamping-down, and he also relates it to how he sometimes reacts on the subway when a girl he's been looking at catches his eye and he pretends to be looking at something else. After a long silence she says, "We're not going to be having sex. I want you to be clear on that."

"Okay."

"That's your fall-back position, is it? 'Okay'?"

"Whatever."

"'Whatever.'" She curls her fingers around her glass, but does not drink. "Well, we've probably had enough mutual understanding for one night, don't you think?"

Bobby pockets the rubber disk, preparing to leave. "What do you do for a living?"

An exasperated sigh. "I work in a brokerage. Now can we take a break? Please?"

"I gotta go home anyway," Bobby says.

The rubber disk takes its place in Bobby's top dresser drawer, resting between the blue half-shoe and a melted glob of metal that may have done duty as a cuff-link, joining a larger company of remnants—scraps of silk and worsted and striped cotton; a flattened fountain pen; a few inches of brown leather hanging from a misshapen buckle; a hinged pin once attached to a brooch. Looking at them breeds a queer vacancy in his chest, as if their few ounces of reality cancels out some equivalent portion of his own. It's the shoe, mostly, that wounds him. An object so powerful in its interrupted grace, sometimes he's afraid to touch it.

After his shower he lies down in the dark of his bedroom and thinks of Alicia. Pictures her handling packets of bills bound with paper wrappers. Even her name sounds like currency, a riffling of crisp new banknotes. He wonders what he's doing with her. She's not his type at all, but maybe she was right, maybe he's deceiving himself about his motives. He conjures up the images of the girls he's been with. Soft and sweet and ultra-feminine. Yet he finds Alicia's sharp edges and severity attractive. Could be he's looking for a little variety. Or maybe like so many people in the city, like lab rats stoned on coke and electricity, his circuits are scrambled and his brain is sending out irrational messages. He wants to talk to her, though. That much he's certain of—he wants to unburden himself. Tales of the pit. His drawer full of relics. He wants to explain that they're not souvenirs. They are the pins upon which he hangs whatever it is he has to leave behind each morning when he goes to work. They are proof of

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

something he once thought a profound abstraction, something too elusive to frame in words, but which he has come to realize is no more than the fact of his survival. This fact, he tells himself, might be all that Alicia needs to understand.

Despite having urged Bobby on, Pineo taunts him about Alicia the next afternoon. His manic edginess has acquired an angry tonality. He takes to calling Alicia "Calculator Bitch." Bobby expects Mazurek to join in, but it seems he is withdrawing from their loose union, retreating into some private pit. He goes about his work with oxlike steadiness and eats in silence. When Bobby suggests that he might want to seek counseling, a comment designed to inflame, to reawaken the man's innate ferocity, Mazurek mutters something about maybe having a talk with one of the chaplains. Though they have only a few basic geographical concerns in common, the three men have sustained one another against the stresses of the job, and that afternoon, as Bobby scratches at the dirt, now turning to mud under a cold drenching rain, he feels abandoned, imperiled by the pit. It all looks unfamiliar and inimical. The silvery lattice of the framework appears to be trembling, as if receiving a transmission from beyond, and the nest of massive girders might be awaiting the return of a fabulous winged monster. Bobby tries to distract himself, but nothing he can come up with serves to brighten his sense of oppression. Toward the end of the shift he begins to worry that they are laboring under an illusion, that the towers will suddenly snap back in from the dimension into which they have been nudged, and everyone will be crushed.

The Blue Lady is nearly empty that night when they arrive. Hookers in the back, Alicia in her customary place. The jukebox is off, the TV muttering—a blond woman is interviewing a balding man with a graphic beneath his image that identifies him as an anthrax expert. They sit at the bar and stare at the TV, tossing back drinks with dutiful regularity, speaking only when it's necessary. The anthrax expert is soon replaced by a terrorism expert who holds forth on the disruptive potentials of Al Qaeda. Bobby can't relate to the discussion. The political sky with its wheeling black shapes and noble music and secret masteries is not the sky he lives and works beneath, gray and changeless, simple as a coffin lid.

"Al Qaeda," Roman says. "Didn't he useta play second base for the Mets? Puerto Rican guy?"

The joke falls flat, but Roman's in stand-up mode.

"How many Al Qaedas does it take to screw in a light bulb?" he asks. Nobody has an answer.

"Two million," says Roman. "One to hold the camel steady, one to do the work, and the rest to carry their picture through the streets in protest when they get trampled by the camel."

"You made that shit up," Pineo says. "I know it. Cause it ain't that funny."

"Fuck you guys!" Roman glares at Pineo, then takes himself off along the counter and goes to reading a newspaper, turning the pages with an angry flourish.

Four young couples enter the bar, annoying with their laughter and bright, flushed faces and prosperous good looks. As they mill about, some wrangling two tables together, others embracing, one woman earnestly

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

asking Roman if he has Lillet, Bobby slides away from the suddenly energized center of the place and takes a seat beside Alicia. She cuts her eyes toward him briefly, but says nothing, and Bobby, who has spent much of the day thinking about things he might tell her, is restrained from speaking by her glum demeanor. He adopts her attitude—head down, a hand on his glass—and they sit there like two people weighted down by a shared problem. She crosses her legs and he sees that she has kicked off a shoe. The sight of her slender ankle and stockinged foot rouses in him a sly Victorian delight.

"This is so very stimulating," she says. "We'll have to do it more often."

"I didn't think you wanted to talk."

"If you're going to sit here, it feels stupid not to."

The things he considered telling her have gone out of his head.

"Well, how was your day?" she asks, modulating her voice like a mom inquiring of a sweet child, and when he mumbles that it was about the same as always, she says, "It's like we're married. Like we've passed beyond the need for verbal communion. All we have to do is sit here and vibe at each other."

"It sucked, okay?" he says, angered by her mockery. "It always sucks, but today it was worse than usual."

He begins, then, to unburden himself. He tells her about him and Pineo and Mazurek. How they're like a patrol joined in a purely unofficial unity by means of which they somehow manage to shield one another from forces they either do not understand or are afraid to acknowledge. And now that unity is dissolving. The gravity of the pit is too strong. The death smell, the horrible litter of souls, the hidden terrors. The underground garage with its smashed, unhaunted cars white with concrete dust. Fires smouldering under the earth. It's like going to work in Mordor, the shadow everywhere. Ashes and sorrow. After a while you begin to feel as if the place is turning you into a ghost. You're not real anymore, you're a relic, a fragment of life. When you say this shit to yourself, you laugh at it. It seems like bullshit. But then you stop laughing and you know it's true. Ground Zero's a killing field. Like Cambodia. Hiroshima. They're already talking about what to build there, but they're crazy. It'd make as much sense to put up a Dairy Queen at Dachau. Who'd want to eat there? People talk about doing it quickly so the terrorists will see it didn't fuck us up. But *pretending* it didn't fuck us up . . . what's that about? Hey, it fucked us up! They should wait to build. They should wait until you can walk around in it and not feel like it's hurting you to live. Because if they don't, whatever they put there is going to be filled with that feeling. That sounds absurd, maybe. To believe the ground's cursed. That there's some terrible immateriality trapped in it, something that'll seep up into the new halls and offices and cause spiritual affliction, bad karma . . . whatever. But when you're in the middle of that mess, it's impossible not to believe it.

Bobby doesn't look at Alicia as he tells her all this, speaking in a rushed, anxious delivery. When he's done he knocks back his drink, darts a glance at her to gauge her reaction, and says, "I had this friend in high school got into crystal meth. It fried his brain. He started having delu-

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

sions. The government was fucking with his mind. They knew he was in contact with beings from a higher plane. Shit like that. He had this whole complex view of reality as conspiracy, and when he told me about it, it was like he was apologizing for telling me. He could sense his own damage, but he had to get it out because he couldn't quite believe he was crazy. That's how I feel. Like I'm missing some piece of myself."

"I know," Alicia says. "I feel that way, too. That's why I come here. To try and figure out what's missing . . . where I am with all this."

She looks at him inquiringly and Bobby, unburdened now, finds he has nothing worth saying. But he wants to say something, because he wants her to talk to him, and though he's not sure why he wants this or what more he might want, he's so confused by the things he's confessed and also by the ordinary confusions that attend every consequential exchange between men and women. . . . Though he's not sure of anything, he wants whatever is happening to move forward.

"Are you all right?" she asks.

"Oh, yeah. Sure. This isn't terminal fucked-uppedness. 'Least I don't think it is."

She appears to be reassessing him. "Why do you put yourself through it?"

"The job? Because I'm qualified. I worked for FEMA the last coupla summers."

Two of the yuppie couples have huddled around the jukebox and their first selection, "Smells Like Teen Spirit," begins its tense, grinding push. Pineo dances on his barstool, his torso twisting back and forth, fists tight against his chest, a parody—Bobby knows—that's aimed at the couples, meant as an insult. Brooding over his bourbon, Mazurek is a graying, thick-bodied troll turned to stone.

"I'm taking my master's in philosophy," Bobby says. "It's finally beginning to seem relevant."

He intends this as humor, but Alicia doesn't react to it as such. Her eyes are brimming. She swivels on her stool, knee pressing against his hip, and puts a hand on his wrist.

"I'm afraid," she says. "You think that's all this is? Just fear. Just an inability to cope."

He's not certain he understands her, but he says, "Maybe that's all."

It feels so natural when she loops her arms about him and buries her face in the crook of his neck, he doesn't think anything of it. His hand goes to her waist. He wants to turn toward her, to deepen the embrace, but is afraid that will alarm her, and as they cling together he becomes insecure with the contact, unclear as to what he should do with it. Her pulse hits against his palm, her breath warms his skin. The articulation of her ribs, the soft swell of a hip, the presence of a breast an inch above the tip of his thumb, all her heated specificity both daunts and tempts him. Doubt concerning their mental well-being creeps in. Is this an instance of healing or a freak scene? Are they two very different people who have connected on a level new to both of them, or are they emotional burn-outs who aren't even talking about the same subject and have misapprehended mild sexual attraction for a moment of truth? Just how

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

much difference is there between those conditions? She pulls him closer. Her legs are still crossed and her right knee slides into his lap, her shoeless foot pushing against his waist. She whispers something, words he can't make out. An assurance, maybe. Her lips brush his cheek, then she pulls back and offers a smile he takes for an expression of regret.

"I don't get it," she says. "I have this feeling. . ." She shakes her head as if rejecting an errant notion.

"What?"

She holds a hand up beside her face as she speaks and waggles it, a blitheness of gesture that her expression does not reflect. "I shouldn't be saying this to someone I met in a bar, and I don't mean it the way you might think. But it's . . . I have a feeling you can help me. Do something for me."

"Talking helps."

"Maybe. I don't know. That doesn't seem right." Thoughtful, she stirs her drink; then a sidelong glance. "There must be something some philosopher said that's pertinent to the moment."

"Predisposition fathers all logics, even those disposed to deny it."

"Who said that?"

"I did . . . in a paper I wrote on Gorgias. The father of sophistry. He claimed that nothing can be known, and if anything could be known, it wasn't worth knowing."

"Well," says Alicia, "I guess that explains everything."

"I don't know about that. I only got a B on the paper."

One of the couples begins to dance, the man, who is still wearing his overcoat, flapping his elbows, making slow-motion swoops, while the woman stands rooted, her hips undulating in a fishlike rhythm. Pineo's parody was more graceful. Watching them, Bobby imagines the bar a cave, the other patrons with matted hair, dressed in skins. Headlights slice across the window with the suddenness of a meteor flashing past in the primitive night. The song ends, the couple's friends applaud them as they head for the group table. But when the opening riff of the Hendrix version of "All Along The Watchtower" blasts from the speakers, they start dancing again and the other couples join them, drinks in hand. The women toss their hair and shake their breasts; the men hump the air. A clumsy tribe on drugs.

The bar environment no longer works for Bobby. Too much unrelieved confusion. He hunches his shoulders against the noise, the happy jabber, and has a momentary conviction that this is not his true reaction, that a little scrap of black negativity perched between his shoulder blades, its claws buried in his spine, has folded its gargoyle wings and he has reacted to the movement like a puppet. As he stands Alicia reaches out and squeezes his hand. "See you tomorrow?"

"No doubt," he says, wondering if he will—he believes she'll go home and chastise herself for permitting this partial intimacy, this unprophylactic intrusion into her stainless career-driven life. She'll stop coming to the bar and seek redemption in a night school business course designed to flesh out her résumé. One lonely Sunday afternoon a few weeks hence, he'll provide the animating fantasy for a battery-powered orgasm.

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

He digs in his wallet for a five, a tip for Roman, and catches Pineo looking at him with unalloyed hostility. The kind of look your great enemy might send your way right before pumping a couple of shells into his shotgun. Pineo lets his double-barreled stare linger a few beats, then turns away to a deep consideration of his beer glass, his neck turtled, his head down. It appears that he and Mazurek have been overwhelmed by identical enchantments.

Bobby wakes up a few minutes before he's due at work. He calls the job, warns them he'll be late, then lies back and contemplates the large orange-and-brown water stain that has transformed the ceiling into a terrain map. This thing with Alicia . . . it's sick, he thinks. They're not going to fuck—that much is clear. And not just because she said so. He can't see himself going to her place, furnishings courtesy of The Sharper Image and Pottery Barn, nor can he picture her in this dump, and neither of them has displayed the urge for immediacy that would send them to a hotel. It's ridiculous, unwieldy. They're screwing around is all. Mind-fucking on some perverted soul level. She's sad because she's drinking to be sad because she's afraid that what she does not feel is actually a feeling. Typical postmodern Manhattan bullshit. Grief as a form of self-involvement. And now he's part of that. What he's doing with her may be even more perverse, but he has no desire to scrutinize his motives—that would only amplify the perversity. Better simply to let it play out and be done. These are strange days in the city. Men and women seeking intricate solace for intricate guilt. Guilt over the fact that they do not embody the magnificent sadness of politicans and the brooding sympathy of anchorpersons, that their grief is a flawed posture, streaked with the banal, with thoughts of sex and football, cable bills and job security. He still has things he needs, for whatever reason, to tell her. Tonight he'll confide in her and she will do what she must. Their mutual despondency, a wrap in four acts.

He stays forever in the shower; he's in no hurry to get to the pit, and he considers not going in at all. But duty, habit, and doggedness exert a stronger pull than his hatred and fear of the place—though it's not truly hatred and fear he feels, but a syncretic fusion of the two, an alchemical product for which a good brand name has not been coined. Before leaving, he inspects the contents of the top drawer in his dresser. The relics are the thing he most needs to explain to her. Whatever else he has determined them to be, he supposes that they are, to a degree, souvenirs, and thus a cause for shame, a morbid symptom. But when he looks at them he thinks there must be a purpose to the collection he has not yet divined, one that explaining it all to Alicia may illuminate. He selects the half-shoe. It's the only choice, really. The only object potent enough to convey the feelings he has about it. He stuffs it into his jacket pocket and goes out into the living room where his roommate is watching the Cartoon Network, his head visible above the back of the couch.

"Slept late, huh?" says the roommate.

"Little bit," Bobby says, riveted by the bright colors and goofy voices, wishing he could stay and discover how Scooby Doo and Shaggy manage to outwit the swamp beast. "See ya later."

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

Shortly before his shift ends he experiences a bout of paranoia during which he believes that if he glances up he'll find the pit walls risen to skyscraper height and all he'll be able to see of the sky is a tiny circle of glowing clouds. Even afterward, walking with Mazurek and Pineo through the chilly, smoking streets, distant car horns sounding in rhythm like an avant garde brass section, he half-persuades himself that it could have happened. The pit might have grown deeper, he might have dwindled. Earlier that evening they began to dig beneath a freshly excavated layer of cement rubble, and he knows his paranoia and the subsequent desire to retreat into irrationality are informed by what they unearthed. But while there is a comprehensible reason for his fear, this does not rule out other possibilities. Unbelievable things can happen of an instant. They all recognize that now.

The three men are silent as they head toward the Blue Lady. It's as if their nightly ventures to the bar no longer serve as a release and have become an extension of the job, prone to its stresses. Pineo goes with hands thrust into his pockets, eyes angled away from the others, and Mazurek looks straight ahead, swinging his thermos, resembling a Trotskyite hero, a noble worker of Factory 39. Bobby walks between them. Their solidity makes him feel unstable, as if pulled at by large opposing magnets—he wants to dart ahead or drop back, but is dragged along by their attraction. He ditches them just inside the entrance and joins Alicia at the end of the bar. Her twenty-five watt smile switches on and he thinks that though she must wear brighter, toothier smiles for co-workers and relatives, this particular smile measures the true fraction of her joy, all that is left after years of career management and bad love.

To test this theory he asks if she's got a boyfriend, and she says, "Jesus! A boyfriend. That's so quaint. You might as well ask if I have a beau."

"You got a beau?"

"I have a history of beaus," she says. "But no current need for one, thank you."

"Your eye's on the prize, huh?"

"It's not just that. Though right now, it is that. I'm"—a sardonic laugh—"I'm ascending the corporate ladder. Trying to, anyway."

She fades on him, gone to a gloomy distance beyond the bar, where the TV chatters ceaselessly of plague and misery and enduring freedom. "I wanted to have children," she says at last. "I can't stop thinking about it these days. Maybe all this sadness has a biological effect. You know. Repopulate the species."

"You've got time to have children," he says. "The career stuff may lighten up."

"Not with the men I get involved with . . . not a chance! I wouldn't let any of them take care of my plants."

"So you got a few war stories, do you?"

She puts up a hand, palm outward, as to if to hold a door closed. "You can't imagine!"

"I've got a few myself."

"You're a guy," she says. "What would you know?"

Telling him her stories, she's sarcastic, self-effacing, almost vivacious, as if by sharing these incidents of male duplicity, laughing at her own

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

naïvete, she is proving an unassailable store of good cheer and resilience. But when she tells of a man who pursued her for an entire year, sending candy and flowers, cards, until finally she decided that he must really love her and spent the night with him, a good night after which he chose to ignore her completely . . . when she tells him this, Bobby sees past her blithe veneer into a place of abject bewilderment. He wonders how she'd look without the make-up. Softer, probably. The make-up is a painting of attitude that she daily recreates. A mask of prettified defeat and coldness to hide her fundamental confusion. Nothing has ever been as she hoped it would be—yet while she has foresworn hope, she has not banished it, and thus she is confused. He's simplifying her, he realizes. Desultory upbringing in some midwestern oasis—he hears a flattened A redolent of Detroit or Chicago. Second-rate education leading to a second-rate career. The wreckage of morning afters. This much is plain. But the truth underlying her stories, the light she bore into the world, how it has transmuted her experience . . . that remains hidden. There's no point in going deeper, though, and probably no time.

The Blue Lady fills with the late crowd. Among them a couple of middle-aged women who hold hands and kiss across their table; three young guys in Knicks gear; two black men attired gangsta-style accompanying an overweight blonde in a dyed fur wrap and a sequined cocktail dress (Roman damns them with a glare and makes them wait for service). Pineo and Mazurek are silently, soddenly drunk, isolated from their surround, but the life of the bar seems to glide around Bobby and Alicia, the jukebox rocks with old Santana, Kinks, and Springsteen. Alicia's more relaxed than Bobby's ever seen her. She's kicked off her right shoe again, shed her jacket, and though she nurses her drink, she seems to become increasingly intoxicated, as if disclosing her past were having the effect of a three-martini buzz.

"I don't think all men are assholes," she says. "But New York men . . . maybe."

"You've dated them all, huh?" he asks.

"Most of the acceptable ones, I have."

"What qualifies as acceptable in your eyes?"

Perhaps he stresses "in your eyes" a bit much, makes the question too personal, because her smile fades and she gives him a startled look. After the last strains of "Glory Days" fade, during the comparative quiet between songs, she lays a hand on his cheek, studies him, and says, less a question than a self-assurance, "You wouldn't treat me like that, would you?" And then, before Bobby can think how he should respond, taken aback by what appears an invitation to step things up, she adds, "It's too bad," and withdraws her hand.

"Why?" he asks. "I mean I kinda figured we weren't going to hook up, and I'm not arguing. I'm just curious why you felt that way."

"I don't know. Last night I wanted to. I guess I didn't want to enough."

"It's pretty unrealistic." He grins. "Given the difference in our ages."

"Bastard!" She throws a mock punch. "Actually, I found the idea of a younger man intriguing."

"Yeah, well. I'm not all that."

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

"Nobody's 'all that,' not until they're with somebody who thinks they are." She pretends to check him out. "You might clean up pretty nice."

"Excuse me," says a voice behind them. "Can I solicit an opinion?"

A good-looking guy in his thirties wearing a suit and a loosened tie, his face an exotic sharp-cheekboned mixture of African and Asian heritage. He's very drunk, weaving a little.

"My girlfriend . . . okay?" He glances back and forth between them. "I was supposed to meet her down . . ."

"No offense, but we're having a conversation here," Bobby says.

The guy holds his hands up as if to show he means no harm and offers apology, but then launches into a convoluted story about how he and his girlfriend missed connections and then had an argument over the phone and he started drinking and now he's broke, fucked up, puzzled by everything. It sounds like the prelude to a hustle, especially when the guy asks for a cigarette, but when they tell him they don't smoke, he does not—as might be expected—ask for money, but looks at Bobby and says, "The way they treat us, man! What are we? Chopped liver?"

"Maybe so," says Bobby.

At this, the guy takes a step back and bugs his eyes. "You got any rye?" he says. "I could use some rye."

"Seriously," Bobby says to him, gesturing at Alicia. "We need to finish our talk."

"Hey," the guy says. "Thanks for listening."

Alone again, the thread of the conversation broken, they sit for a long moment without saying anything, then start to speak at the same time.

"You first," says Bobby.

"I was just thinking. . . ." She trails off. "Never mind. It's not that important."

He knows she was on the verge of suggesting that they should get together, but that once again the urge did not rise to the level of immediacy. Or maybe there's something else, an indefinable barrier separating them, something neither one of them has tumbled to. He thinks this must be the case, because given her history, and his own, it's apparent neither of them have been discriminating in the past. But she's right, he decides—whatever's happening between them is simply not that important, and thus it's not that important to understand.

She smiles, an emblem of apology, and stares down into her drink. "Free Falling" by Tom Petty is playing on the box, and some people behind them begin wailing along with it, nearly drowning out the vocal.

"I brought something for you," Bobby says.

An uneasy look. "From your work?"

"Yeah, but this isn't the same. . . ."

"I told you I didn't want to see that kind of thing."

"They're not just souvenirs," he says. "If I seem messed up to you . . . and I'm sure I do. I *feel* messed up, anyway. But if I seem messed up, the things I take from the pit, they're kind of an explanation for . . ." He runs a hand through his hair, frustrated by his inability to speak what's on his mind. "I don't know why I want you to see this. I guess I'm hoping it'll help you understand something."

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

"About what?" she says, leery.

"About me . . . or where I work. Or something. I haven't been able to nail that down, y'know. But I do want you to see it."

Alicia's eyes slide away from him; she fits her gaze to the mirror behind the bar, its too perfect reflection of romance, sorrow, and drunken fun. "If that's what you want."

Bobby touches the half-shoe in his jacket pocket. The silk is cool to his fingers. He imagines that he can feel its blueness. "It's not a great thing to look at. I'm not trying to freak you out, though. I think . . ."

She snaps at him. "Just show it to me!"

He sets the shoe beside her glass and for a second or two it's like she doesn't notice it. Then she makes a sound in her throat. A single note, the human equivalent of an ice cube *plinking* in a glass, bright and clear, and puts a hand out as if to touch it. But she doesn't touch it, not at first, just leaves her hand hovering above the shoe. He can't read her face, except for the fact that she's fixated on the thing. Her fingers trail along the scorched margin of the silk, tracing the ragged line. "Oh, my god!" she says, all but the glottal sound buried beneath a sudden surge in the music. Her hand closes around the shoe, her head droops. It looks as if she's in a trance, channeling a feeling or some trace of memory. Her eyes glisten and she's so still, Bobby wonders if what he's done has injured her, if she was unstable and now he's pushed her over the edge. A minute passes and she hasn't moved. The jukebox falls silent, the chatter and laughter of the other patrons rise around them.

"Alicia?"

She shakes her head, signaling either that she's been robbed of the power to speak or is not interested in communicating.

"Are you okay?" he asks.

She says something he can't hear, but he's able to read her lips and knows the word "god" was again involved. A tear escapes the corner of her eye, runs down her cheek, and clings to her upper lip. It may be that the half-shoe impressed her, as it has him, as being the perfect symbol, the absolute explanation of what they have lost and what has survived, and this, its graphic potency, is what has distressed her.

The jukebox kicks in again, an old Stan Getz tune, and Bobby hears Pineo's voice bleating in argument, cursing bitterly; but he doesn't look to see what's wrong. He's captivated by Alicia's face. Whatever pain or loss she's feeling, it has concentrated her meager portion of beauty, and suffering, she's shining; the female hound of Wall Street thing she does with her cosmetics radiated out of existence by a porcelain *Song of Bernadette* saintliness, the clean lines of her neck and jaw suddenly pure and Periclean. It's such a startling transformation, he's not sure it's really happening. Drink's to blame, or there's some other problem with his eyes. Life, according to his experience, doesn't provide this type of quintessential change. Thin, half-grown cats do not of an instant gleam and grow sleek in their exotic simplicity like tiny gray tigers. Small, tidy Cape Cod cottages do not because of any shift in weather, no matter how glorious the light, glow resplendent and ornate like minor Asiatic temples. Yet Alicia's golden change is manifest. She's beautiful. Even the red membrane-

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

ous corners of her eyes, irritated by tears and city grit, seem decorative, part of a subtle design, and when she turns to him, the entire new delicacy of her features flowing toward him with the uncanny force of a visage materializing from a beam of light, he feels imperiled by her nearness, uncertain of her purpose. What can she now want of him? As she pulls his face close to hers, lips parting, eyelids half-lowering, he is afraid a kiss may kill him, either overpower him, a wave washing away a tiny scuttler on the sand, or that the taste of her, a fraction of warm saliva resembling a speck of crystal with a flavor of sweet acid, will react with his own common spittle to synthesize a compound microweight of poison, a perfect solution to the predicament of his mortality. But then another transformation, one almost as drastic, and as her mouth finds him, he sees the young woman, vulnerable and soft, giving and wanting, the childlike need and openness of her.

The kiss lasts not long, but long enough to have a history, a progression from contact to immersion, exploration to a mingling of tongues and gushing breath, yet once their intimacy is completely achieved, the temperature dialed high, she breaks from it and puts her mouth to his ear and whispers fiercely, tremulously, "Thank you. . . . Thank you so much!" Then she's standing, gathering her purse, her briefcase, a regretful smile, and says, "I have to go."

"Wait!" He catches at her, but she fends him off.

"I'm sorry," she says. "But I have to . . . right now. I'm sorry."

And she goes, walking smartly toward the door, leaving him with no certainty of conclusion, with his half-grown erection and his instantly catalogued memory of the kiss surfacing to be examined and weighed, its tenderness and fragility to be considered, its sexual intensity to be marked upon a scale, its meaning surmised, and by the time he's made these judgments, waking to the truth that she has truly, unequivocably gone and deciding to run after her, she's out the door. By the time he reaches the door, shouldering it open, she's twenty-five, thirty feet down the sidewalk, stepping quickly between the parked cars and the storefronts, passing a shadowed doorway, and he's about to call out her name when she moves into the light spilling from a coffee shop window and he notices that her shoes are blue. Pale blue with a silky sheen and of a shape that appears identical to that of the half-shoe left on the bar. If, indeed, it was left there. He can't remember now. Did she take it? The question has a strange, frightful value, born of a frightful suspicion that he cannot quite reject, and for a moment he's torn between the impulse to go after her and a desire to turn back into the bar and look for the shoe. That, in the end, is what's important. To discover if she took the shoe, and if she did, then to fathom the act, to decipher it. Was it done because she thought it a gift, or because she wanted it so badly, maybe to satisfy some freaky neurotic demand, that she felt she had to more or less steal it, get him confused with a kiss and bolt before he realized it was missing? Or—and this is the notion that's threatening to possess him—was the shoe hers to begin with? Feeling foolish, yet not persuaded he's a fool, he watches her step off the curb at the next corner and cross the street, dwindling and dwindling, becoming indistinct from other pedestrians. A

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

stream of traffic blocks his view. Still toying with the idea of chasing after her, he stands there for half a minute or so, wondering if he has misinterpreted everything about her. A cold wind coils like a scarf about his neck, and the wet pavement begins soaking into his sock through the hole in his right boot. He squints at the poorly defined distance beyond the cross-street, denies a last twinge of impulse, then yanks open the door of the Blue Lady. A gust of talk and music seems to whirl past him from within, like the ghost of a party leaving the scene, and he goes on inside, even though he knows in his heart that the shoe is gone.

Bobby's immunity to the pit has worn off. In the morning he's sick as last week's salmon plate. A fever that turns his bones to glass and rots his sinuses, a cough that sinks deep into his chest and hollows him with chills. His sweat smells sour and yellow, his spit is thick as curds. For the next forty-eight hours he can think of only two things. Medicine and Alicia. She's threaded through his fever, braided around every thought like a strand of RNA, but he can't even begin to make sense of what he thinks and feels. A couple of nights later the fever breaks. He brings blankets, a pillow, and orange juice into the living room and takes up residence on the sofa. "Feeling better, huh?" say the roommate, and Bobby says, "Yeah, little bit." After a pause, the roommate hands him the remote and seeks refuge in his room, where he spends the day playing video games. *Quake,* mostly. The roars of demons and chattering chain guns issue from behind his closed door.

Bobby channel surfs, settles on CNN, which is alternating between an overhead view of Ground Zero and a studio shot of an attractive brunette sitting at an anchor desk, talking to various men and women about 9/11, the war, the recovery. After listening for almost half an hour, he concludes that if this is all people hear, this gossipy, maudlin chitchat about life and death and healing, they must know nothing. The pit looks like a dingy hole with some yellow machines moving debris—there's no sense transmitted of its profundity, of how—when you're down in it—it seems deep and everlasting, like an ancient broken well. He goes surfing again, finds an old Jack the Ripper movie starring Michael Caine, and turns the sound low, watches detectives in long dark coats hurrying through the dimly lit streets, paperboys shouting news of the latest atrocity. He begins to put together the things Alicia told him. All of them. From "I've just been to a funeral," to "Everybody's ready to go on with their lives, but I'm not ready," to "That's why I come here . . . to figure out what's missing," to "I have to go." Her transformation . . . did he really see it? The memory is so unreal, but then all memories are unreal, and at the moment it happened he knew to his bones who and what she was, and that when she took the shoe, the object that let her understand what had been done to her, she was only reclaiming her property. Of course everything can be explained in other ways, and it's tempting to accept those other explanations, to believe she was just an uptight careerwoman taking a break from corporate sanity and once she recognized where she was, what she was doing, who she was doing it with, she grabbed a souvenir and beat it back to the email-messaging, network-building, clickety-click world of

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

spread sheets and wheat futures and martinis with some cute guy from advertising who would eventually fuck her brains out and afterward tell the-bitch-was-begging-for-it stories about her at his gym. That's who she was, after all, whatever her condition. An unhappy woman committed to her unhappy path, wanting more yet unable to perceive how she had boxed herself in. But the things that came out of her on their last night at the Blue Lady, the self-revelatory character of her transformation . . . the temptation of the ordinary is incapable of denying those memories.

It's a full week before Bobby returns to work. He comes in late, after darkness has fallen and the lights have been switched on, halfway inclined to tell his supervisor that he's quitting. He shows his ID and goes down into the pit, looking for Pineo and Mazurek. The great yellow earth movers are still, men are standing around in groups, and from this Bobby recognizes that a body has been recently found, a ceremony just concluded, and they're having a break before getting on with the job. He's hesitant to join the others and pauses next to a wall made of huge concrete slabs, shattered and resting at angles atop one another, holding pockets of shadow and worse in their depths. He's been standing there about a minute when he feels her behind him. It's not like in a horror story. No terrible cold or prickling hairs or windy voices. It's like being with her in the bar. Her warmth, her perfumey scent, her nervous poise. But frailer, weaker, a delicate presence barely in the world. He's afraid if he turns to look at her, it will break their tenuous connection. She's probably not visible, anyway. No Stephen King commercial, no sight of her hovering a few inches off the ground, bearing the horrid wounds that killed her. She's a willed fraction of herself, less tangible than a wisp of smoke, less certain than a whisper. "Alicia," he says, and her effect intensifies. Her scent grows stronger, her warmth more insistent. and he knows why she's here. "I realize you had to go," he says, and then it's like when she embraced him, all her warmth employed to draw him close. He can almost touch her firm waist, the tiered ribs, the softness of a breast, and he wishes they could go out. Just once. Not so they could sweat and make sleepy promises and lose control and then regain control and bitterly go off in opposite directions, but because at most times people were only partly there for one another—which was how he and Alicia were in the Blue Lady, knowing only the superficial about each other, a few basic lines and a hint of detail, like two sketches in the midst of an oil painting, their minds directed elsewhere, not caring enough to know all there was to know—and the way it is between them at this moment, they would try to know everything. They would try to find the things that did not exist like smoke behind their eyes. The ancient grammars of the spirit, the truths behind their old yet newly demolished truths. In the disembodiment of desire, an absolute focus born. They would call to one another, they would forget the cities and the wars. . . . Then it's not her mouth he feels, but the feeling he had when they were kissing, a curious mixture of bewilderment and carnality, accented this time by a quieter emotion. Satisfaction, he thinks. At having helped her understand. At himself understanding his collection of relics and why he approached her. Fate or coincidence, it's all the same, all clear to him now.

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

"Yo, Bobby!"

It's Pineo. Smirking, walking toward him with a springy step and not a trace of the hostility he displayed the last time they were together. "Man, you look like shit, y'know."

"I wondered if I did," Bobby says. "I figured you'd tell me."

"It's what I'm here for." Pineo fakes throwing a left hook under Bobby's ribs.

"Where's Carl?"

"Taking a dump. He's worried about your ass."

"Yeah, I bet."

"C'mon! You know he's got that dad thing going with you." Pineo affects an Eastern European accent, makes a fist, scowls Mazurek-style. "'Bobby is like son to me.'"

"I don't think so. All he does is tell me what an asshole I am."

"That's Polish for 'son,' man. That's how those old bruisers treat their kids."

As they begin walking across the pit, Pineo says, "I don't know what you did to Calculator Bitch, man, but she never did come back to the bar. You musta messed with her mind."

Bobby wonders if his hanging out with Alicia was the cause of Pineo's hostility, if Pineo perceived him to be at fault, the one who was screwing up their threefold unity, their trinity of luck and spiritual maintenance. Things could be that simple.

"What'd you say to her?" Pineo asks.

"Nothing. I just told her about the job."

Pineo cocks his head and squints at him. "You're not being straight with me. I got the eye for bullshit, just like my mama. Something going on with you two?"

"Uh-huh. We're gonna get married."

"Don't tell me you're fucking her."

"I'm not fucking her!"

Pineo points at him. "There it is! Bullshit!"

"Sicilian ESP. . . . Wow. How come you people don't rule the world?"

"I can't *believe* you're fucking the Calculator Bitch!" Pineo looks up to heaven and laughs. "Man, were you even sick at all? I bet you spent the whole goddamn week sleep-testing her Serta."

Bobby just shakes his head ruefully.

"So what's it like . . . yuppie pussy?"

Irritated now, Bobby says, "Fuck off!"

"Seriously. I grew up in Queens, I been deprived. What's she like? She wear thigh boots and a colonel's hat? She carry a riding crop? No, that's too much like her day job. She . . ."

One of the earth movers starts up, rumbling like T-Rex, vibrating the ground, and Pineo has to raise his voice to be heard.

"She was too sweet, wasn't she? All teach me tonight and sugar, sugar. Like some little girl read all the books but didn't know what she read till you come along and pulled her trigger. Yeah . . . and once the little girl thing gets over, she goes wild on your ass. She loses control, she be fucking liberated."

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

Bobby recalls the transformation, not the-glory-that-was-Alicia part, the shining forth of soul rays, but the instant before she kissed him, the dazed wonderment in her face, and realizes that Pineo—unwittingly, of course—has put his grimy, cynical, ignorant, wise-ass finger on something he, Bobby, has heretofore not fully grasped. That she did awaken, and not merely to her posthumous condition, but to him. That at the end she remembered who she wanted to be. Not "who," maybe. But *how.* How she wanted to feel, how she wanted to live. The vivid, less considered road she hoped her life would travel. Understanding this, he understands what the death of thousands has not taught him. The exact measure of his loss. And ours. The death of one. All men being Christ and God in His glorious fever burning, the light toward which they aspire. Love in the whirlwind.

"Yeah, she was all that," Bobby says. ❍

DRACONIAN SOLUTION

Picture the scene:
A screaming young maiden, reasonably unattired;
A bold young hero
Wrapped prettily in a tin suit,
Not too rusty, mind;
An audience of greater
Or lesser magnitude
(Must include some crackly fat ones)
Bearing sundry lances, pennons,
Chicken sandwiches; a sour priest or two;
Always the delectable horses;
And (if they've brought a wizard
Desiccated properly with age)
A spicy chew toy for dessert.

—PMF Johnson

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

THE GREAT GAME

Stephen Baxter

The author's latest novel, *Evolution*, is just out from Del Rey. After that he's doing a series that, like this story, is set in the Xeelee universe. It will be called "Homo Superior." The first book, *Coalescent*, will be published by Del Rey in 2004. "The Great Game" refers to events in an earlier story, The Soliton Star" (*Asimov's*, May 1997). Human expansion has continued, but the tension between humans and Xeelee has intensified. . . .

We were in the blister, waiting for the drop. My marines, fifty of them in their bright orange Yukawa suits, were sitting in untidy rows. They were trying to hide it, but I could see the fear in the way they clutched their static lines, and their unusual reluctance to rib the wetbacks.

Well, when I looked through the transparent walls and out into the sky, I felt it myself.

We had been flung far out of the main disc, and the sparse orange-red stars of the halo were a foreground to the galaxy itself, a pool of curdled light that stretched to right and left as far as you could see. But as the Spline ship threw itself gamely through its complicated evasive maneuvers, that great sheet of light flapped around us like a bird's broken wing. I could see our destination's home sun—it was a dwarf, a pinprick glowing dim red—but even that jiggled around the sky as the Spline bucked and rolled.

And, leaving aside the vertigo, what deepened my own fear was the glimpses I got of the craft that swarmed like moths around that dwarf star. Beautiful swooping ships with sycamore-seed wings, they were unmistakable. They were Xeelee nightfighters.

The Xeelee were the captain's responsibility, not mine. But I couldn't stop my over-active mind speculating on what had lured such a dense concentration of them so far out of the Galactic core that is their usual stamping ground.

Given the tension, it was almost a relief when Lian threw up.

Those Yukawa suits are heavy and stiff, meant for protection rather than flexibility, but she managed to lean far enough forward that her

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

bright yellow puke mostly hit the floor. Her buddies reacted as you'd imagine, but I handed her a wipe.

"Sorry, Lieutenant." She was the youngest of the troop, at seventeen ten years younger than me.

I forced a grin. "I've seen worse, marine. Anyhow you've given the wetbacks something to do when we've gone."

"Yes, sir. . . ."

What you definitively don't want at such moments is a visit from the brass. Which, of course, is what we got.

Admiral Kard came stalking through the drop blister, muttering to the loadmaster, nodding at marines. At Kard's side was a Commissary—you could tell that at a glance—a woman, tall, ageless, in the classic costume of the Commission for Historical Truth, a floor-sweeping gown and shaved-bald head. She looked as cold and lifeless as every Commissary I ever met.

I stood up, brushing vomit off my suit. I could see how the troops were tensing up. But I couldn't have stopped an admiral; this was his flag.

They reached my station just as the destination planet, at last, swam into view.

We grunts knew it only by a number. That eerie sun was too dim to cast much light, and despite low-orbiting sunsats much of the land and sea was dark velvet. But great orange rivers of fire coursed across the black ground. This was a suffering world.

Admiral Kard was watching me. "Lieutenant Neer. Correct?"

"Sir."

"Welcome to Shade," he said evenly. "You know the setup here. The Expansion reached this region five hundred years ago. We haven't been much in contact since. But when our people down there called for help, the Navy responded." He had cold artificial Eyes, and I sensed he was testing me.

"We're ready to drop, sir."

The Commissary was peering out at the tilted landscape, hands folded behind her back. "Remarkable. It's like a geology demonstrator. Look at the lines of volcanoes and ravines. Every one of this world's tectonic faults has given way, all at once."

Admiral Kard eyed me. "You must forgive Commissary Xera. She does think of the universe as a textbook."

He was rewarded for that with a glare.

I kept silent, uncomfortable. Everybody knows about the tension between Navy, the fighting arm of mankind's Third Expansion, and Commission, implementer of political will. Maybe that structural rivalry was the reason for this impromptu walk-through, as the Commissary jostled for influence over events, and the admiral tried to score points with a display of his fighting troops.

Except that right now they were *my* troops, not his.

To her credit, Xera seemed to perceive something of my resentment. "Don't worry, Lieutenant. It's just that Kard and I have something of a history. Two centuries of it, in fact, since our first encounter on a world called Home, thousands of light years from here."

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

I could see Lian look up at that. According to the book, *nobody* was supposed to live so long. I guess at seventeen you still think everybody follows the rules.

Kard nodded. "And you've always had a way of drawing subordinates into our personal conflicts, Xera. Well, we may be making history today. Neer, look at the home sun, the frozen star."

I frowned. "What's a *frozen star?*"

The Commissary made to answer, but Kard cut across her. "Skip the science. Those Xeelee units are swarming like rats. We don't know *why* the Xeelee are here. But we do know what they are doing to this human world."

"That's not proven," Xera snapped.

Despite that caveat I could see my people stir. None of us had ever heard of a direct attack by the Xeelee on human positions.

Lian said boldly, "Admiral, sir—"

"Yes, rating?"

"Does that mean we are at war?"

Admiral Kard sniffed up a lungful of ozone-laden air. "After today, perhaps we will be. How does that make you feel, rating?"

Lian, and the others, looked to me for guidance.

I looked into my heart.

Across seven thousand years humans had spread out in a great swarm through the galaxy, even spreading out into the halo beyond the main disc, overwhelming and assimilating other life forms as we encountered them. We had faced no opponent capable of systematic resistance since the collapse of the Silver Ghosts five thousand years before—none but the Xeelee, the galaxy's other great power, who sat in their great concentrations at the core, silent, aloof. For my whole life, and for centuries before, all of mankind had been united in a single purpose: to confront the Xeelee, and claim our rightful dominion.

And now—perhaps—here I was at the start of it all.

What I felt was awe. Fear, maybe. But that wasn't what the moment required. "I'll tell you what I feel, sir. Relief. *Bring them on!*"

That won me a predictable hollering, and a slap on the back from Kard. Xera studied me blankly, her face unreadable.

Then there was a flare of plasma around the blister, and the ride got a lot bumpier. I sat before I was thrown down, and the loadmaster hustled away the brass.

"Going in hard," called the loadmaster. "Barf bags at the ready. Ten minutes."

We were skimming under high, thin, icy clouds. The world had become a landscape of burning mountains and rivers of rock that fled beneath me.

All this in an eerie silence, broken only by the shallow breaths of the marines.

The ship lurched up and to the right. To our left now was a mountain; we had come so low already that its peak was above us. According to the century-old survey maps the locals had called it Mount Perfect. And, yes,

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

once it must have been a classic cone shape, I thought, a nice landmark for an earthworm's horizon. But now its profile was spoiled by bulges and gouges, ash had splashed around it, and deeper mud-filled channels had been cut into the landscape, splayed like the fingers of a hand.

Somewhere down there, amid the bleating locals, there was an academician called Tilo, dropped by the Navy a couple of standard days earlier, part of a global network who had been gathering data on the causes of the volcanism. Tilo's job, bluntly, had been to prove that it was all the Xeelee's fault. The academician had somehow got himself cut off from his uplink gear; I was to find and retrieve him. No wonder Xera had been so hostile, I thought; the Commissaries were famously suspicious of the alliance between the Navy and the Academies—

Green lights marked out the hatch in the invisible wall.

The loadmaster came along the line. "Stand up! Stand up!" The marines complied clumsily.

"Thirty seconds," the loadmaster told me. He was a burly, scarred veteran, attached to a rail by an umbilical as thick as my arm. "Winds look good."

"Thank you."

"You guys be careful down there. All clear aft. Ten seconds. Five." The green lights began to blink. We pulled our flexible visors across our faces. "Three, two—"

The hatch dilated, and the sudden roar of the wind made all this real.

The loadmaster was standing by the hatch, screaming. "Go, go, go!" As the marines passed I checked each static line one last time with a sharp tug, before they jumped into blackness. The kid, Lian, was the second last to go—and I was the last of all.

So there I was, falling into the air of a new world.

The static line went taut and ripped free, turning on my suit's Yukawa-force gravity nullifier. That first shock can be hurtful, but to me, after maybe fifty drops in anger, it came as a relief.

I looked up and to my right. I saw a neat line of marines falling starfished through the air. One was a lot closer to me than the rest—Lian, I guessed. Past them I made out our Spline vessel, its hull charred from its hurried entry into the atmosphere. Even now it looked immense, its pocked hull like an inverted landscape above me. It was a magnificent sight, an awe-inspiring display of human power and capability.

But beyond it I saw the hulking majesty of the mountain, dwarfing even the Spline. A dense cloud of smoke and ash lingered near its truncated summit, underlit by a fiery glow.

I looked down, to the valley I was aiming for.

The Commission's maps had shown a standard-issue Conurbation surrounded by broad, shining replicator fields, where the ground's organic matter was processed seamlessly into food. But the view now was quite different. I could see the characteristic bubble-cluster shape of a Conurbation, but it looked dark, poorly maintained, while suburbs of blockier buildings had sprouted around it.

You expected a little drift from orthodoxy, out here on the edge of everything.

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

Still, that Conurbation was our target for the evacuation. I could see the squat cone shape of a heavy-lift shuttle, dropped here on the Spline's last pass through the atmosphere, ready to lift the population. My marines were heading for the Conurbation, just as they should.

But I had a problem, I saw now. There was another cluster of buildings and lights, much smaller, stranded half way up the flank of the mountain. Another village?

I'm not sentimental. You do what you can, what's possible. I wouldn't have gone after that isolated handful—if not for the fact that a pale pink light blinked steadily at me.

It was Tilo's beacon. Kard had made it clear enough that unless I came home with the academician, or at least with his data, next time I made a drop it would be without a Yukawa suit.

I slowed my fall and barked out orders. It was a simple mission; I knew my people would be able to supervise the evacuation of the main township without me. Then I turned and continued my descent, down toward the smaller community.

It was only after I had committed myself that I saw one of my troop had followed me: the kid, Lian.

No time to think about that now. A Yukawa suit is good for one drop, one way. You can't go back and change your mind. Anyhow I was already close. I glimpsed a few ramshackle buildings, upturned faces shining like coins.

Then the barely visible ground raced up to meet me. Feet together, knees bent, back straight, roll when you hit—and then a breath-stealing impact on hard rock.

I allowed myself three full breaths, lying there on the cold ground, as I checked I was still in one piece.

Then I stood and pulled off my visor. The air was breathable, but thick with the smell of burning, and of sulphur. But the ground quivered under my feet, over and over. I wasn't too troubled by that—until I reminded myself that planets were supposed to be *stable.*

Lian was standing there, her suit glowing softly. "Good landing, sir," she said.

I nodded, glad she was safe, but irritated; if she'd followed orders she wouldn't have been here at all. I turned away from her, a deliberate snub that was enough admonishment for now.

The sky was deep. Beyond clouds of ash, sunsats swam. Past them I glimpsed the red pinprick of the true sun, and the wraith-like galaxy disc beyond.

Behind me the valley skirted the base of Mount Perfect, neatly separating it from more broken ground beyond. The landscape was dark green, its contours coated by forest, and clear streams bubbled into a river that ran down the valley's center. A single, elegant bridge spanned the valley, reaching toward the old Conurbation. Further upstream I saw what looked like a logging plant, giant pieces of yellow-colored equipment standing idle amid huge piles of sawn trees. Idyllic, if you liked that kind of thing, which I didn't.

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

On this side of the valley, the village was just a huddle of huts—some of them made from *wood*—clustered on the lower slopes of the mountain. Bigger buildings might have been a school, a medical center. There were a couple of battered ground transports. Beyond, I glimpsed the rectangular shapes of fields—apparently ploughed, not a glimmer of replicator technology in sight, mostly covered in ash.

People were standing, watching me, grey as the ground under their feet. Men, women, children, infants in arms, old folk, people in little clusters. There were maybe thirty of them.

Lian stood close to me. "Sir, I don't understand."

"These are *families,*" I murmured. "You'll pick it up."

"Dark matter." The new voice was harsh, damaged by smoke; I turned, startled.

A man was limping toward me. About my height and age but a lot leaner, he was wearing a tattered Navy coverall, and he was using an improvised crutch to hobble over the rocky ground, favoring what looked like a broken leg. His face and hair were grey with the ash.

I said, "You're the academician."

"Yes, I'm Tilo."

"We're here to get you out."

He barked a laugh. "Sure you are. Listen to me. *Dark matter.* That's why the Xeelee are here. It may have nothing to do with *us* at all. Things are going to happen fast. If I don't get out of here—whatever happens, just remember that one thing . . ."

Now a woman hurried toward me. One of the locals, she was wearing a simple shift of woven cloth, and leather sandals on her feet; she looked maybe forty, strong, tired. An antique translator box hovered at her shoulder. "My name is Doel," she said. "We saw you fall—"

"Are you in charge here?"

"I—" She smiled. "Yes, if you like. Will you help us get out of here?"

She didn't look, or talk, or act, like any Expansion citizen I had ever met. Things truly had drifted here. "You are in the wrong place." I was annoyed how prissy I sounded. I pointed to the Conurbation, on the other side of the valley. "*That's* where you're supposed to be."

"I'm sorry," she said, bemused. "We've lived here since my grandfather's time. We didn't like it, over in Blessed. We came here to live a different way. No replicators. Crops we grow ourselves. Clothes we make—"

"Mothers and fathers and grandfathers," Tilo cackled. "What do you think of that, Lieutenant?"

"Academician, why are you here?"

He shrugged. "I came to study the mountain, as an exemplar of the planet's geology. I accepted the hospitality of these people. That's all. I got to like them, despite their—alien culture."

"But you left your equipment behind," I snapped. "You don't have comms implants. You didn't even bring your mnemonic fluid, did you?"

"I brought my pickup beacon," he said smugly.

"Lethe, I don't have time for this." I turned to Doel. "Look—if you can get yourself across the valley, to where that transport is, you'll be taken out with the rest."

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

"But I don't think there will be time—"
I ignored her. "Academician, can you walk?"
Tilo laughed. "No. And *you* can't hear the mountain."
That was when Mount Perfect exploded.

Tilo told me later that, if I'd known where and how to look, I could have seen the north side of the mountain bulging out. The defect had been growing visibly, at a meter a day. Well, I didn't notice that. Thanks to some trick of acoustics, I didn't even hear the eruption—though it was slightly heard by other Navy teams working hundreds of kilometers away.

But the aftermath was clear enough. With Lian and Doel, and with Academician Tilo limping after us, I ran to the crest of a ridge to see down the length of the valley.

A sharp earthquake had caused the mountain's swollen flank to shear and fall away. As we watched, a billion tons of rock slid into the valley in a monstrous landslide. Already a huge grey thunderhead of smoke and ash was rearing up to the murky sky.

But that was only the start, for the removal of all that weight was like opening a pressurized can. The mountain erupted—not upward, but *sideways*, like the blast of an immense weapon, a volley of superheated gas and pulverized rock. It quickly overtook the landslide, and I saw it roll over trees—imports from distant Earth, great vegetable sentinels centuries old, flattened like straws.

I was stupefied by the *scale* of it all.

Now, from out of the ripped-open side of the mountain, a chthonic blood oozed, yellow-grey, viscous, steaming hot. It began to flow down the mountainside, spilling into rain-cut valleys.

"That's a lahar," Tilo murmured. "Mud. I've learned a lot of esoteric geology here, Lieutenant. . . . The heat is melting the permafrost—these mountains were snow-covered two weeks ago; did you know that?—making up a thick mixture of volcanic debris and meltwater."

"So it's just mud," said Lian uncertainly.

"You aren't an earthworm, are you, marine?"

"Look at the logging camp," Doel murmured, pointing.

Already the mud had overwhelmed the heavy equipment, big yellow tractors and huge cables and chains used for hauling logs, crumpling it all like paper. Piles of sawn logs were spilled, immense wooden beams shoved downstream effortlessly. The mud, grey and yellow, was steaming, oddly like curdled milk.

For the first time I began to consider the contingency that we might not get out of here. In which case my primary mission was to preserve Tilo's data.

I quickly used my suit to establish an uplink. We were able to access Tilo's records, stored in cranial implants, and fire them up to the Spline. But in case it didn't work—

"Tell me about dark matter," I said. "Quickly."

Tilo pointed up at the sky. "That star—the natural sun, the dwarf—shouldn't exist."

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

"What?"

"It's too small. It has only around a twentieth Earth's sun's mass. It should be a planet: a brown dwarf, like a big, fat Jovian. It shouldn't burn—*not yet.* You understand that stars form from the interstellar medium—gas and dust, originally just Big-Bang hydrogen and helium. But stars bake heavy elements, like metals, in their interiors, and eject them back into the medium when the stars die. So as time goes on, the medium is increasingly polluted."

Impatiently I snapped, "And the point—"

"The point is that an increase in impurities in the medium lowers the critical mass needed for a star to be big enough to burn hydrogen. Smaller stars start lighting up. Lieutenant, that star shouldn't be shining. Not in this era, not for trillions of years yet; the interstellar medium is too clean. . . . You know, it's so small that its surface temperature isn't thousands of degrees, like Earth's sun, but the freezing point of water. That is a star with ice clouds in its atmosphere. There may even be liquid water on its surface."

I looked up, wishing I could see the frozen star better. Despite the urgency of the moment I shivered, confronted by strangeness, a vision from trillions of years downstream.

Tilo said bookishly, "What does this mean? It means that out here in the halo, something, some agent, is making the interstellar medium dirtier than it ought to be. The only way to do that is by *making the stars grow old.*" He waved a hand at the cluttered sky. "And if you look, you can see it all over this part of the halo; the H-R diagrams are impossibly skewed. . . ."

I shook my head; I was far out of my depth. What could make a star grow old too fast? . . . Oh. "Dark matter?"

"The matter we're made of—baryonic matter, protons and neutrons and the rest—is only about a tenth the universe's total. The rest is dark matter: subject only to gravity and the weak nuclear force, impervious to electromagnetism. Dark matter came out of the Big Bang, just like the baryonic stuff. As our galaxy coalesced the dark matter was squeezed out of the disc. . . . But this is the domain of dark matter, Lieutenant. Out here in the halo."

"And this stuff can affect the ageing of stars."

"Yes. A dark matter concentration in the core of a star can change temperatures, and so affect fusion rates."

"You said *an agent* was ageing the stars." I thought that over. "You make it sound intentional."

He was cautious now, an academician who didn't want to commit himself. "The stellar disruption appears non-random."

Through all the jargon, I tried to figure out what this meant. "Something is *using* the dark matter? . . . Or are there life forms *in* the dark matter? And what does that have to do with the Xeelee, and the problems here on Shade?"

His face twisted. "I haven't figured out the links yet. There's a lot of history. I need my data desk," he said plaintively.

I pulled my chin, thinking of the bigger picture. "Academician, you're on

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

an assignment for the admiral. Do you think you're finding what he wants to hear?"

He eyed me carefully. "The admiral is part of a—grouping—within the Navy that is keen to go to war, even to provoke conflict. Some call them extremists. Kard's actions have to be seen in this light."

Actually, I'd heard such rumors, but I stiffened. "He's my commanding officer. That's all that matters."

Tilo sighed. "Mine too, in a sense. But—"

"Lethe," Lian said suddenly. "Sorry, sir. But that mud is moving *fast.*"

So it was, I saw.

The flow was shaped by the morphology of the valley, but its front was tens of meters high, and it would soon reach the village. And I could see that the gush out of the mountain's side showed no signs of abating. The mud was evidently powerfully corrosive; the land's green coat was ripped away to reveal bare rock, and the mud was visibly eating away at the walls of the valley itself. I saw soil and rock collapse into the flow. Overlaying the crack of tree trunks and the clatter of rock, there was a noise like the feet of a vast running crowd, and a sour, sulfurous smell hit me.

"I can't believe how fast this stuff is rising," I said to Tilo. "The volume you'd need to fill up a valley like this—"

"You and I are used to spacecraft, Lieutenant. The dimensions of human engineering. Planets are *big*. And when they turn against you—"

"We can still get you out of here. With these suits we can get you over that bridge and to the transport—"

"What about the villagers?"

I was aware of the woman, Doel, standing beside me silently. Which, of course, made me feel worse than if she'd yelled and begged.

"We have mixed objectives," I said weakly.

There was a scream. We looked down the ridge and saw that the mud had already reached the lower buildings. A young couple with a kid were standing on the roof of a low hut, about to get cut off.

Lian said, "Sir?"

I waited one more heartbeat, as the mud began to wash over that hut's porch.

"Lethe, Lethe." I ran down the ridge until I hit the mud.

Even with the suit's augmentation the mud was difficult stuff to wade through—lukewarm, and with a consistency like wet cement. The stench was bad enough for me to pull my visor over my mouth. On the mud's surface were dead fish that must have jumped out of the river to escape the heat. There was a lot of debris in the flow, from dust to pebbles to small boulders: no wonder it was so abrasive.

By the time I reached the little cottage I was already tiring badly.

The woman was bigger, obviously stronger than the man. I had her take her infant over her head, while I slung the man over my shoulder. With me leading, and the woman grabbing onto my belt, we waded back toward the higher ground.

All this time the mud rose relentlessly, filling up the valley as if it had been dammed, and every step sapped my energy.

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

Lian and Doel helped us out of the dirt. I threw myself to the ground, breathing hard. The young woman's legs had been battered by rocks in the flow; she had lost one sandal, and her trouser legs had been stripped away.

"We're already cut off from the bridge," Lian said softly.

I forced myself to my feet. I picked out a building—not the largest, not the highest, but a good compromise. "That one. We'll get them onto the roof. I'll call for another pickup."

"Sir, but what if the mud keeps rising?"

"Then we'll think of something else," I snapped. "Let's get on with it."

She was crestfallen, but she ran to help as Doel improvised a ladder from a trellis fence.

My first priority was to get Tilo safely lodged on the roof. Then I began to shepherd the locals up there. But we couldn't reach all of them before the relentless rise of the mud left us all ankle-deep. People began to clamber up to whatever high ground they could find—verandas, piles of boxes, the ground transports, even rocks. Soon maybe a dozen were stranded, scattered around a landscape turning grey and slick.

I waded in once more, heading toward two young women who crouched on the roof of a small building, like a storage hut. But before I got there the hut, undermined, suddenly collapsed, pitching the women into the flow. One of them bobbed up and was pushed against a stand of trees, where she got stuck, apparently unharmed. But the other tipped over and slipped out of sight.

I reached the woman in the trees and pulled her out. The other was gone.

I hauled myself back onto the roof for a break. All around us the mud flowed, a foul-smelling grey river, littered with bits of wood and rock.

I'd never met that woman. It was as if I had become part of this little community, all against my will, as we huddled together on that crudely built wooden roof. Not to mention the fact that I now wouldn't be able to fulfill my orders completely.

The loss was visceral. I prepared to plunge back into the flow.

Tilo grabbed my arm. "No. You are exhausted. Anyhow you have a call to make, remember?"

Lian spoke up. "Sir. Let me go," she said awkwardly, "I can manage that much."

Redemption time for this marine. "Don't kill yourself," I told her.

With a grin she slid off the roof.

Briskly, I used my suit's comms system to set up a fresh link to the Spline. I requested another pickup—was told it was impossible—and asked for Kard.

Tilo requested a Virtual data desk. He fell on it as soon as it appeared. His relief couldn't have been greater, as if the mud didn't exist.

When they grasped the situation I had gotten us all into, Admiral Kard and Commissary Xera both sent down Virtual avatars. The two of them hovered over our wooden roof, clean of the mud, gleaming like gods among people made of clay.

Kard glared at me. "What a mess, Lieutenant."

"Yes, sir."

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

"You should have gotten Tilo over that damn bridge while you could. We're heavily constrained by the Xeelee operations. You realize we probably won't be able to get you out of here alive."

It struck me as somewhat ironic that in the middle of a galaxy-spanning military crisis I was to be killed by mud. But I had made my choice. "So I understand."

"But," Xera said, her thin face fringed by blocky pixels, "he has completed his primary mission, which is to deliver Tilo's data back to us."

Kard closed his Eyes, and his image flickered; I imagined Tilo's data and interpretations pouring into the processors that sustained this semi-autonomous Virtual image, tightly locked into Kard's original sensorium. Kard said, "Lousy prioritization. Too much about this *dark matter* crud, Academician."

Xera said gently, "You were here on assignment from your masters in the Navy, with a specific purpose. But it's hard to close your eyes to the clamoring truth, isn't it, Academician?"

Tilo sighed, his face mud-covered.

"We must discuss this," Kard snapped. "All of us, right now. We have a decision to make, a recommendation to pass up the line—and we need to assess what Tilo has to tell us, in case we can't retrieve him."

I understood immediately what he meant. I felt a deep thrill. Even the locals stirred, apparently aware that something momentous was about to happen, even in the midst of their own misfortunes, stuck as we were on that battered wooden roof.

So it began.

At first Tilo wasn't helpful.

"It isn't clear that this is Xeelee action, deliberately directed against humans." Despite Kard's glare, he persisted, "I'm sorry, Admiral, but it isn't *clear.* Look at the context." He pulled up historical material—images, text that scrolled briefly in the murky air. "This is not a new story. There is evidence that human scientists were aware of dark-matter contamination of the stars *before* the beginning of the Third Expansion. It seems an engineered human being was sent into Sol itself. . . . An audacious project. But this was largely lost in the Qax Extirpation, and after that—well, we had a galaxy to conquer. There was a later incident, a project run by the Silver Ghosts, but—"

Kard snapped, "What do the Xeelee care about dark matter?"

Tilo rubbed tired eyes with grubby fists. "However exotic they are, the Xeelee are baryonic life forms, like us. It isn't in their interests for the suns to die young, any more than for us." He shrugged. "Perhaps they are trying to stop it. Perhaps *that's* why they have come here, to the halo. Nothing to do with us—"

Kard waved a Virtual hand at Mount Perfect's oozing wounds. "Then why all this, just as they show up? Coincidence?"

"Admiral—"

"This isn't a trial, Tilo," Kard said. "We don't need absolute proof. The imagery—human refugees, Xeelee nightfighters swooping overhead—will be all we need."

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

Xera said dryly, "Yes. All we need to sell a war to the Coalition, the governing councils, and the people of the Expansion. This is wonderful for you, isn't it, Admiral? It's what the Navy has been waiting for, along with its Academy cronies. An excuse to attack."

Kard's face was stony. "The cold arrogance of you cosseted intellectuals is sometimes insufferable. It's true that the Navy is ready to fight, Commissary. That's our job. We have the plans in place."

"But does the existence of the plans *require* their fulfillment? And let's remember how hugely the Navy itself will benefit. As the lead agency, a war would clearly support the Navy's long-term political goals."

Kard glared. "We all have something to gain."

And they began to talk, rapidly, about how the different agencies of the Coalition would position themselves in the event of a war.

The military arms, like the Pilots and the Communicators, would naturally ally with the Navy, and would benefit from an increase in military spending. Academic arms like the great Libraries on Earth would be refocused; there was thought to be a danger that with their monopoly on information they were becoming too powerful. Even the Guardians—the Expansion's internal police force—would find a new role: the slowly rising tide of petty crime and illegal economic operations would surely reverse, and the Guardians could return to supporting the Commission in the policing of adherence to the Druz Doctrine—not to mention enforcing the draft.

A lot of this went over my head. I got the sense of the great agencies as shadowy independent empires, engaging in obscure and shifting alliances—like the current links between Navy and Academies, designed to counter the Commission's intellectual weight. And now each agency would consider the possibility of a war as an opportunity to gain political capital.

It was queasy listening. But there's a lot I didn't want to know about how the Coalition is run. Still don't, in fact.

". . . And then there is the economic argument," Kard was saying. "It is as if the Third Expansion itself *is* a war, an endless war against whoever stands in our way. Our economy is on a permanent war-time footing. Let there be no mistake—we could not coexist with the Xeelee, for they would forever represent a ceiling to our ambitions, a ceiling under which we would ultimately wither. We need continued growth—and so a confrontation with the Xeelee is ultimately inevitable." He leaned forward. "And there is more. Xera, *think how much the Commission itself stands to benefit.*

"You Commissaries are responsible for maintaining the unity of mankind; the common principles, common purpose, the *belief* that has driven the Expansion so far. But isn't it obvious that you are failing? Look at this place." He waved a Virtual hand through Doel's hair; the woman flinched, and the hand broke up into drifting pixels. "This woman is a *mother*, apparently some kind of matriarch to her extended *family*. It's as if Hama Druz never existed.

"If the Druz Doctrine were to collapse, the Commission would have no purpose. Think of the good you do, for you know so much better than the

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

mass of mankind how they should think, feel, live, and die. Your project is humanitarian! And it has to continue. We need a purification. An ideological cleansing. And that's what the bright fire of war will give us."

I could see that his arguments, aimed at the Commissary's vanity and self-interest, were leaving a mark.

Tilo was still trying to speak. He showed me more bits of evidence he had assembled on his data desk. "I think I know now why the volcanism started here. *This planet* has an unusually high dark matter concentration in its core. Under such densities the dark matter annihilates with ordinary matter and creates heat—"

I listened absently. "Which creates the geological upheaval."

He closed his eyes, thinking. "Here's a scenario. The Xeelee have been driving dark matter creatures out of the frozen star—and, fleeing, they have lodged here—and that's what set off the volcanism. It was all inadvertent. The Xeelee are trying to *save stars,* not harm humans. . . ."

But nobody paid any attention to that. For, I realized, we had already reached a point where evidence didn't matter.

Kard turned to the people of the village, muddy, exhausted, huddled together on their rooftop. "What of you? *You* are the citizens of the Expansion. There are reformers who say you have had enough of expansion and conflict, that we should seek stability and peace. Well, you have heard what we have had to say, and you have seen our mighty ships in the sky. Will you live out your lives on this drifting rock, helpless before a river of mud—or will you transcend your birth and die for an epic cause? War makes everything new. War is the wildest poetry. *Will you join me?*"

Those ragged-ass, dirt-scratching, orthodoxy-busting farmers hesitated for a heartbeat. You couldn't have found a less likely bunch of soldiers for the Expansion.

But, would you believe, they started cheering the admiral: every one of them, even the kids. Lethe, it brought a tear to my eye.

Even Xera seemed coldly excited now.

Kard closed his Eyes; metal seams pushed his eyelids into ridges. "A handful of people in this desolate, remote place. And yet a new epoch is born. They are listening to us, you know—listening in the halls of history. And *we* will be remembered forever."

Tilo's expression was complex. He clapped his hands, and the data desk disappeared in a cloud of pixels, leaving his work unfinished.

We mere fleshy types had to stay on that rooftop through the night. We could do nothing but cling to each other, as the muddy tide rose slowly around us, and the kids cried from hunger.

When the sunsats returned to the sky, the valley was transformed. The channels had been gouged sharp and deep by the lahar, and the formerly agricultural plain had been smothered by lifeless grey mud, from which only occasional trees and buildings protruded.

But the lahar was flowing only sluggishly. Lian cautiously climbed to the edge of the roof and probed at the mud with her booted foot. "It's very thick."

Tilo said, "Probably the water has drained out of it."

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

Lian couldn't stand on the mud, but if she lay on it she didn't sink. She flapped her arms and kicked, and she skidded over the surface. Her face grey with the dirt, she laughed like a child. "Sir, look at me! It's a lot easier than trying to swim. . . ."

So it was, when I tried it myself.

And that was how we got the villagers across the flooded valley, one by one, to the larger township—not that much was left of that by now—where the big transport had waited to take us off. In the end we lost only one of the villagers, the young woman who had been overwhelmed by the surge. I tried to accept that I'd done my best to fulfill my contradictory mission objectives—and that, in the end, was the most important outcome for me.

As we lifted, Mount Perfect loosed another eruption.

Tilo, cocooned in a med cloak, stood beside me in an observation blister, watching the planet's mindless fury. He said, "You know, you can't stop a lahar. It just goes the way it wants to go. Like this war, it seems."

"I guess."

"We understand so little. We *see* so little. But when you add us together we combine into huge historical forces that none of us can deflect, any more than you can dam or divert a mighty lahar . . . ."

And so on. I made an excuse and left him there.

I went down to the sick bay, and watched Lian tending to the young from the village. She was patient, competent, calm. I had relieved her of her regular duties, as she was one of the few faces here that was familiar to the kids, who were pretty traumatized. I felt proud of that young marine. She had grown up a lot during our time on Shade.

And as I watched her simple humanity, I imagined a trillion such acts, linking past and future, history and destiny, a great tapestry of hard work and goodwill that united mankind into a mighty host that would some day rule a galaxy.

To tell the truth I was bored with Tilo and his niggling. *War!* It was magnificent. It was inevitable.

I didn't understand what had happened down on Shade, and I didn't care. What did it matter *how* the war had started, in truth or lies? We would soon forget about dark matter and the Xeelee's obscure, immense projects, just as we had before; we humans didn't think in such terms. All that mattered was that the war was here, at last.

The oddest thing was that none of it had anything to do with the Xeelee themselves. Any enemy would have served our purposes just as well.

I began to wonder what it would mean for me. I felt my heart beat faster, like a drumbeat.

We flew into a rising cloud of ash, and bits of rock clattered against our hull, frightening the children. O

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

IN THE ICEHOUSE

Sally Gwylan

Sally Gwylan was born in Texas, and raised all over the South. She now resides in New Mexico in a small, handmade, off-the-grid house a half-hour west of Albuquerque (within earshot of the railroad tracks), a beautiful spot if you ignore all the neighbors' trailers. A graduate of the 1985 Clarion, Ms. Gwylan currently does database work in a fancy rock shop among meteorites, fossils, and geologic wonders. "In the Icehouse" is her first story for *Asimov's*.

A few steps beyond the shelter of the trees, Philippa cringed as the icy wind struck her, tearing at her thin layers of clothing. Its hiss and yammer filled her ears beneath her watch cap, ceaseless, riding her nerves—a wrong wind, almost an angry wind, though she couldn't have said exactly why she thought this. Ahead on the small lake's near shore crouched a weathered gray building. Head down, Philippa hugged the folds of the stolen jacket tighter round her ribs and fought her way toward it.

It had to be the icehouse; her need allowed no other possibility. Everything else she could see was the prismatic white of snow smoking in late afternoon sunlight, of thin, scoured ice and then snow again beyond the lake out to the horizon. The trail the gap-toothed bum had pointed out from the boxcar's open door—his casual gesture damning it as a lousy second best to his offer to keep her warm through a long, rattling night—had led her from the tracks and the wooden water tower to the shelterbelt's far side. Blowing snow erased any trace of path ahead, but there was, after all, no place she could go back to in this northern wilderness. The freight tender had finished taking on water before she'd gotten very far into the stand of spruce and sad-leafed birch. She'd heard steam hissing as the engine built up pressure, and then the rumble of iron wheels, but hadn't turned around to watch the train go.

She found that hummocky ground hid beneath the smooth blanket of snow; she fell more than once crossing the field, helped by the wind's erratic push. Philippa was tall for going-on-thirteen, and strong when she'd had enough to eat, but the powdery snow came to her knees in places. An

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

impossible amount of snow for late September in a drought year, and far too cold, even for Minnesota. And the oddest thing was there hadn't been any snow at all further north. That morning in Grand Rapids the air had held no more than an autumn chill.

Nothing made sense anymore.

At last, the double doors loomed above her, wide and high enough for a fully loaded flatbed ford to pass. Although their bases were buried, an upper corner of one leaned outward, loose from its hinge. Philippa scraped a little snow away and kicked hard at the door, hoping to rotate it enough to crawl inside. The only thing the blow accomplished was to knock snow further down into the roomy depths of her rubber boot. She had a distant feeling that her toes ought to hurt, but her feet had been mostly numb since the icy wind had kicked up, somewhere back around Carver Lake.

She dropped to her knees and put her right shoulder to the door, straining against its bulk. Her boots scrabbled for purchase in the snow; found enough to keep pushing. The door yielded no more than the building's stone foundation would have. Her eyes strayed up to the heavy bar above her head, finding the metal fixtures that held it in place: solid brackets, two to each door and one on either side. A stout chain and padlock, both rusty but intact, secured the bar. This farmer might not have tended his icehouse since bad crop prices and the bank foreclosures brought on by the Crash of '29 shut a lot of folks down, but his doors still held.

Philippa's determined strength ran out of her like the sweat from a breaking fever; she crouched in the snow and lashing wind, shivering, gasping in lungfuls of burning air. Had the bum back at the freight been red-lighting her after all? He'd laughed when she jumped down to the snowy cinders, seeming more amused by her retreat than angry. A panicky nausea swept through her at the memory of his whiskery, leering face, followed by shame and despair. You had to be tough to get by on the road, to be able to do whatever you had to; all the kids knew that. Get wise, the more experienced girls advised her, and going with guys seemed to work fine for them. But she couldn't. The thought made her sick, or blind angry, or worse. There'd been a few times a fellow had kept after her, and then the world seemed to go away for awhile. She'd come back to herself on some main stem miles away, walking the broken pavement as though she had no intention to ever stop.

This time, the world might really go away. The wind that sucked warmth from her, that hunted along the building's edge and mumbled constantly in her ears, might die down with the night. Wind often did. However, the sky above her was hard and clear. Without shelter, she would freeze to death, ill wind or no. They said freezing was an easy way to go, but so far it didn't feel easy at all.

"Chump. Stupid frail." Philippa muttered, her voice slurred by cold-stiffened lips. "Gotta be some reason for the path, don't there? Where else could it go? Get up! Get moving!" The sound of the words, harsh and staccato against the wind's clamor, was not enough to unlock her muscles. Being huddled low to the ground at least made her a smaller target. Rage tightened her throat. "Coward! Goddamn gutless coward!" she whispered, shivering.

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

A heavy gust whipped across her back, and she used its force as a spur. She staggered to her feet and faced defiantly into the teeth of the wind. Muttering every curse she could remember from her months on the road, she worked her way lakeward, along the wall.

The ice-chute hatch, halfway along the side of the building that faced the lake, was almost buried by a snowdrift. Both its hinges were torn out of the wall, and the small door sat a little crooked in its opening. On her knees again, Philippa dug frantically, trying to protect her bare hands with the long sleeves of the chore jacket. When she had a space cleared in front of it almost to its base, she rocked the door up and to the side.

She ducked through the low doorway and stood cautiously, her head rising into the still darkness. Accustomed to the snow glare outside, she could see nothing beyond the rectangle of light at her feet. The place was occupied, though; she could smell woodsmoke laced with a hint of coffee. Dizzy with relief and sudden hunger, Philippa braced herself against the rough wood of the wall behind her.

"Come on in, brother, and get warm," a musical voice rang out, a girl's voice with a rolling accent Philippa didn't recognize. Familiar or not, the sound of it, the welcome, brought sudden tears to her eyes.

"Yeah," a rougher voice added. "Welcome, brother, and shut the goddamn door!"

Wearily, Philippa turned to crouch on the wooden planks of the ice-chute, enduring the lash of the wind on her face as she wrestled the door more-or-less back into place. With some effort, she got it settled so that no more than a light breeze whistled around its edges.

Just being out of the wind was a great relief.

She waited until she could see the faint outlines of the chute running down to an uneven floor. Fire gleamed red off to her right, then disappeared again with a clang of metal on metal. Someone below made a comment, words she could not catch, and someone else laughed. Apprehension froze her in place a moment longer; but she was used to that. Nothing so familiar would keep her from the fire.

She felt her way down the chute to the center of the big room. The ramp was broad and solid underfoot, with a raised edge, but its angle was steep and her balance still uncertain. Her eyes adjusted to the dim light that filtered in through small vents up under the eaves.

The icehouse was cavernous and shadowy, big as one of the drygoods warehouses by the tracks back home in Fort Smith, and a good two stories high now that she was down inside it. Sawdust was everywhere, packed beneath her feet into a cushioned aisle, piled randomly on every side. Ahead and to her right, a long, head-high mound of sawdust formed a bulwark around the space that held the stove. Above this barrier, sheltering most of one corner of the building, was a patchwork ceiling supported on posts and beams of unstripped birch. A stovepipe poked through this and spilled gray smoke into the upper reaches of the building. Down here at ground level, the air smelled of pine resin and mold and something unfamiliar that tickled her nose like old axle grease.

Off to her left, in the furthermost corner, was a jumble of what looked

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

like old machinery and other farm castoffs. A flicker of motion or light caught her eye from within the indistinct pile; it was gone before she could focus on it. A rat or squirrel, perhaps. This building would be a haven for them. Though something about the flicker gave her the feeling it hadn't been caused by a live creature.

Rat, or unstable bit of metal nudged loose by the blast of wind she'd brought with her entrance: neither was anything to concern her now. A gap in the mounded sawdust formed a gateway into the camp. Drawn by the promise of warmth and coffee and stew, Philippa walked through it.

There looked to be maybe twelve people in the camp, an array of mostly young, pinched faces. About half were absorbed in other things, and did not immediately look up at her. A dark-haired, rounded girl bent over a crate, chopping onions; the pungent smell made Philippa briefly nauseous with stale hunger.

Over against the stones of the west wall, a boy and an older man played checkers on a makeshift board. Three other boys watched the game intently, making brief comments. One 'bo was sacked out, head shrouded by a dirty brown coat; Philippa couldn't tell the sleeper's age or sex. All the others were boys of various ages. Almost all kids; that's what the bum in the boxcar had told her about this jungle.

Four or five pairs of eyes followed her progress to the oildrum stove. The muscles in her back tightened and her breath came shallow. She cleared her throat. "Cold out there," she offered, holding out stiff hands to the rusty curve of the stove. The dry heat licked at her face, bringing a hint of feeling back to her cheeks. Her nose began to run.

"Betcha so. We ain't none of us been out today," one of the older boys replied. His scalp was covered with a short stubble of blond hair, likely sign of a recent delousing at some mission. "Iz here peeks out this morning and says the snow's deep as Christmas. So we're holed up." The scrawny kid next to him ducked his head in agreement.

"Ain't right, cold like this so soon," the lanky boy who was playing checkers said. He frowned down at the board and moved a piece. "Weather's goin' to hell."

Philippa shivered; inside her clothes she was still cold. "Yeah," she said. She didn't want to think about the conditions outside right yet, the too-early blanket of snow and ice, the troublous wind. She wiped her nose on the sleeve of her jacket, then bent to take off the rubber boots.

"Everything's goin' to hell," another boy muttered. No one bothered to respond to this obvious truth.

After a minute of struggle, Philippa sat down on the dirty sawdust and stripped everything off her feet—the boots, the layers of damp newspaper, the dirty tennis shoes and ragged socks. Her feet looked puffed-up and blotchy, and they still felt like thick blocks of rubber. Not too bad, really; no frozen skin. She rubbed them absently. One of her big toes looked a little funny, from kicking the door, she figured.

Her clothes were getting soggy as they warmed. Philippa pulled off the jacket and her cap, freeing her long, untidy braid to hang heavy against her back.

"You can hang that stuff over there to dry," a hoarse voice advised her.

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

Philippa twisted around to see that the sleeper had roused, a girl a couple of years older than her. The girl's face was flushed and her thin blond hair long and tangled; she pointed to a line of nails sticking out of one of the beams.

Philippa thanked her and stripped off her outer pair of overalls as well. The pockets were stuffed with potatoes she'd filched from the same shed that yielded the chore jacket and rubber boots. She'd taken more potatoes, enough to fill the jacket pockets too, but had eaten those the last time she'd had a fire. You could eat them raw, of course, but she had no stomach for it. Nor for stealing, for that matter, but it had seemed another case of doing what you had to.

The cook had laid aside her knife to stir the meat-smelling soup that simmered on top of the stove. Philippa carried the lumpy overalls over next to the crate that served as table and chopping block, and dumped the potatoes out onto the sawdust. The cook smiled at her warmly. She stuck out her free hand. "Mara," she said. "Sorry I thought you were a guy. Couldn't tell from here. You eaten?"

She would have recognized the voice anyway, from the odd, lilting accent. Philippa felt tears start again in the corners of her eyes, and she colored in embarrassment. "Yesterday I had a sandwich a lady give me," she managed after a moment of confusion. Awkwardly she shook the outstretched hand, thinking how much easier coming in here would've been if she was a boy. "It's okay. Name's Arlie," she said, surprising herself with this invention. "Some folks make that out to be 'Arkie.'"

Well, other 'bos took road names. Though she'd always liked her name well enough, she'd gotten teased about it back home. And only Meemaw had been allowed to call her Filly.

Mara threw her head back and laughed. Her curly hair was cropped short as a boy's. On her it looked good. "Long way from home, too, I reckon. Does it snow like this in Arkansas?" She turned to one of the kids clustered around the checkerboard. "Here's a neighbor of yours, Tulsa."

The boy looked up and grinned at her, revealing a chipped tooth. "Too cold for us here, Arlie. We best flip us a redball down south."

Philippa stiffened. His eyes didn't have that sly look she'd learned to watch for, but she was never sure how to take such offers. "Naw, I'd roast down there anymore," she said, trying for a joking tone.

Mara went on to introduce everyone else, pointing from one to the next with the smooth-whittled stick she had used for stirring. The older man was Nob, small and well-muscled and weathered. He tipped the battered felt hat he wore, then went back to studying the board. Drink was Nob's current challenger, the boy who'd cursed the weather.

Simon and Jimmy were the other kibitzers. The two of them looked to be sixteen or seventeen, and bore an odd resemblance to Mara, more a matter of expression than of features. There was something else strange about them, though it took a second for Philippa to put her finger on it. Their clothes were as ragged as anybody else's, but they were cut funny, and the seams didn't look right. Not store-bought, anyway. Still, however odd their clothing, they didn't scare her like older guys often did.

She missed a name wondering about this, but heard the girl who'd been

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

sleeping introduced as Betts. After that Philippa's brain pretty well gave up, though she did catch that the stubble-haired boy was Karl. She nodded as each introduction rolled by her, feeling tongue-tied. Her thawing feet burned and itched, and she shifted restlessly where she stood.

"Supper's pretty soon," Mara told her. Mara's red sweater was funny too, Philippa saw, now that she was looking—the sleeves seemed too short for the rest of it. And it looked more like felt than ordinary knitting. Went along with the foreign edge to the cook's voice, she decided.

"Help yourself to coffee," Mara went on. "Just so you know, we're using the corner way over yonder as a privy while the weather's so bad." The cook pointed to the farthest corner of the building from them, off to the left of the ice-chute door. "Oh yeah, and you'll want to avoid that back corner that's all piled up with junk, at least at night." Her tone was casual but serious underneath: concern, or a warning, or both.

Philippa shrugged. She couldn't see any reason a body'd want to go stumbling around out there in the dark and cold, anyway.

"A kid bust his ankle there about three weeks ago," Mara told her. "We had a hell of a time getting him to a doctor. There. That covers the basics. Make yourself comfortable." She flashed another grin at Philippa, then turned back to her soup.

After her clothes were hung to her satisfaction, Philippa poured some coffee into a tin can wrapped up in the cuff of her sweater. She scooped out a seat for herself in the slope of the bulwark, as close to the stove as she could get. She lay back, tired but too edgy and hungry to doze off. As she sipped the bitter coffee, she watched the others through lowered eyelashes, trying to get a sense of them.

Karl and the scrawny kid and—what was his name? Lefty?—were the noisy ones. They were engaged in comparing dustups they had seen or taken part in. Lefty, Philippa gathered, was considered a tough fighter. He looked it, too, with his big, blunt hands and tightwound way of moving, for all he seemed only fourteen or so. It was his voice that had told her to shut the door, she was pretty sure. Philippa figured she'd best stay out of his way as much as possible. Karl didn't seem so rough, and the kid who looked younger even than her was just a sidekick for the older boys.

Across the room, the checkers tournament continued, with Tulsa as the new challenger. Jimmy lay on his belly on top of the bulwark, chewing on a straw and commenting with great enthusiasm about the game. Near them, the kid whose name she didn't remember bent close over a rip in the knee of his pants, trying to sew it up in the fading light from the vents. Betts seemed to have gone back to sleep, stirring only when she coughed.

Philippa began to relax. She had been provisionally welcomed, and although that carried dangers of its own, she wouldn't face the defensive cruelty of a gang that felt itself threatened by an outsider. It gave her family of a sort, at least for the night. She surveyed the room again, meeting Tulsa's eyes briefly as he glanced up; and then the scrawny kid's intense gaze. One pair of light eyes and one dark, but with the same tired wariness lurking in the corners. She'd seen the same look reflected back to her from shop windows. It was one of the marks of a road kid.

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

The scrawny kid didn't look away, so Philippa did, a little uncomfortable.

The wind still battered at the building's wood-sheathed upper walls; she could hear it clearly when she listened for it. She thought about the strangeness of this wind; not just unseasonably cold, but wrong, as though it carried despair and fury.—Almost that, but wind didn't have feelings. Wind had notes, and this one was painfully sharp. Wind tied everything together, but this one had been ripped loose some way. Philippa shivered. The wind bothered her more than the unlikely snow.

Her older sister would mock her for thinking like this. Corinna was about as weatherwise as a chunk of Arkansas limestone, unlike Philippa, who took after their daddy's side of the family.

Her sister was also about as sensitive to a body's feelings as a chunk of rock. Philippa's mouth tightened as she recalled Corinna sitting at the supper table, telling Hank in a mincing voice all about his sister-in-law's latest "fancy."

And Hank's burning eyes on her, watching her be shamed. Drinking it in for later.

Dizzy, Philippa pulled herself back from getting tangled in that dark maze. Her heart was beating fast and thin and her new breasts ached. She gripped handfuls of the sawdust and forced herself to breathe slow.

Simon came back into the camp once again. From the privy, Philippa presumed, thankful for the distraction; he carried no wood. He and Jimmy seemed to wander in and out a lot. Restless, maybe. Neither of them had the sunken, yellowish look the trots gave you. Simon stopped to talk to Mara, his hawk's profile set in a grave expression. Philippa tried to hear what he was saying in such a serious tone, but caught nothing she could make sense of: something about unstable power levels and the wind and barrow-something pressure, whatever that was. And bad rheostats. She'd heard that word before—had something to do with radios or electricity, maybe. She thought of the pile of junk Mara had warned her away from. Any equipment there was pretty well bound to be bad, or the farmer wouldn't have dumped it in an unused icehouse.

And what all that might have to do with the unseasonable weather, like Simon seemed to be saying, was beyond her.

Mara laughed; she seemed to laugh a lot. "It's just a freak storm; you know that's what they'll say. You worry too much, *bvarit,*" she told him; at least Philippa thought that was what the last word had been. Something Finnish, perhaps; she'd heard there were a lot of Finns in this part of Minnesota, all tightfisted as hell. Or it could be a lot of other languages. Road kids came from a tinker's lot of backgrounds. Whatever the words, Philippa felt the same rush of emotion she'd experienced earlier in response to Mara's voice. Its range and varied tone woke something in the center of her chest, something that both drew her in and frightened her. Simon's accent, though similar to Mara's, didn't do that to her at all.

Laying down her knife, Mara wrapped an arm around Simon's waist, leaning into him. He smiled down at her and ruffled her short curls. He didn't seem entirely reassured about whatever had been bothering him, however.

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

"Got a smoke, kid?" Philippa looked over to see that Betts was awake again. A livid crease on one cheek marked where she had pillowed her head on her arm.

Philippa shook her head. "I got papers, but that's all." It was a bad idea to hoard what you had when you were alone and new to a jungle. She dug into her pockets, retrieving the tattered packet of cigarette papers along with her penknife, a pencil stub, a nickel, and her lucky penny. It was all she had aside from the toothbrush in her overalls and the two safety pins that held together the remains of the wool dress pants she wore as an underlayer. She'd have to borrow the needle and some thread from that kid who was sewing, Philippa thought, looking down at the three-cornered tear over one thigh. Tomorrow, when there was light enough for a long session of mending.

"Too bad," Betts sighed, and the sigh turned into another chesty cough. She walked unsteadily over to the washtub of melted snow that sat near the stove, and dipped herself a cup from it.

Jimmy, the redhead, joined Simon and Mara by the woodstove. He was smaller than Simon and more loose-jointed, but just as intense as the other boy. Philippa watched as the cook pulled him in close too. Seeing them together like that made their resemblance stronger. Though Mara and Simon were dark, and Jimmy pale and freckled, they moved like family, or like a team.

As the embrace ended, Jimmy glanced up and found Philippa watching them. He flushed, then smiled rather uncertainly at her, one reddish eyebrow cocked. Uncomfortable in turn, Philippa looked away.

Protesting that she had supper to finish, Mara shooed both of the boys off. Simon settled near the checker players, though he stayed alert, as if he was listening for something. Jimmy wandered toward the opening in the bulwark, his second trip out that Philippa had noticed.

Taking turns, it almost seemed like. Bootlegging, Philippa thought suddenly. But that was dumb. The junkpile out there was big enough to hide a lot of cases of gin—or even a still if there was some way of heating it without everybody knowing. Perhaps that could be the power levels Simon had talked about? But the spot was lousy from a transport point of view. And anyway, these guys seemed too earnest for a racket like that. Bootleggers and their sort tended to a certain kind of swagger.

Mara tasted the soup from the end of her stirring stick. Philippa watched her, fascinated both by the way the older girl moved and by the promise of food.

"Cripes, but I feel lousy. That damn wind don't help, neither. Feel like my head's getting pounded." Betts flopped down next to Philippa, wrapping her overcoat tight around her shoulders. After a moment, she asked, "You hungry?"

Philippa glanced at her. She wasn't yet sure if she liked Betts or not. "I'm hungry pretty much all the time. You?"

Betts managed a washed-out grin. "Ain't that the truth, Arlie! But not tonight. With this damn cold, my breadbasket's kinda out of sorts."

"You guys must've had some awfully good luck before the storm hit," Philippa said, thinking about what must have gone into the soup to make

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

it smell like that. And then there was the other big pot steaming away on the stove's rusty top. She couldn't tell what was in that, but it looked promising anyway.

"Around here?" Betts scoffed. "Naw, we all brung in some stuff, but Mara and them got a big stash of grub. I dunno where they got their mitts on stuff like that—or how they hauled it out here, for that matter. Mara sure knows how to cook it up, though."

Philippa asked, her voice careful, "They kinda run this jungle then?"

"Yeah, kinda. Mostly Mara does. They was here first. Nobody kicks about it. She's reasonable."

Asking questions could be a tricky business, but Philippa felt that she had some momentum going now. Something was different about the cook and the two guys she was with, something more than the clothes and the accent. Philippa wanted to figure it out. "She and those two guys Christers?"

Betts spit out the water she'd been swallowing, an involuntary action that set off another coughing fit. When she regained her breath she wheezed, "That's the funniest damn thing I heard today, kid. Her and Simon and Jimmy are some strange kinda Wobs, or Reds, maybe. More to my taste than Christers, if you know what I mean."

Philippa shrugged. Both Christians and the labor radical Wobblies tended to preach at you, though the Christians were more likely to do it while your belly was empty. On the other hand, her Meemaw had been a stout and cheerful Baptist, taking her young granddaughter with her to camp meetings and sings. Philippa had sung right along with Meemaw, getting lost in the vast, scratchy harmony of the hymns.

But Meemaw was two years gone, and Philippa didn't want to think about that anymore. That and a lot of other things.

Anyway, it made sense about Mara and them being Wobs, though it didn't quite explain what she felt from them. Calm. "Blessed assurance, Jesus is mine. . . ."; the hymn sounded in her head. Except that whatever assurance they had wasn't Jesus, apparently.

Quiet-footed in his ragged socks, Karl appeared in front of them. He squatted down easily in his oversized trousers, grinning at Philippa. "Say, Arlie, I hear you talking papers." He pulled a Bull Durham bag out of an inside pocket. "Just so happens I got some makings."

Betts' eyes lit up. "You been sitting on that all this time, Karl? That's no way to treat your pals."

Karl turned his attention to her, teasing. "Ain't much good without papers, now is it?"

"Yeah, well, we coulda whittled us a pipe or something," she shot back. "But if we got it, let's not just gab about it."

Philippa tossed him the packet, eager to get herself out of the way. "Here, Karl. They're all yours." He caught it casually, flashing her another grin. He and Betts each slipped a paper loose, trading gibes as they settled down to rolling.

Philippa scooted away from them a little; it wasn't a cigarette she wanted, but food. And she was just as happy to have Karl's attention focused elsewhere.

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

A warm body sat down on the far side of her: the scrawny kid, Iz. "Looks like good stuff to get in on," he said awkwardly, hunched over, his restless hands tucked between his knees. He tried to smile at her, but only managed to look anxious.

Philippa's empty stomach clenched. Not again; why couldn't guys just leave her alone? Casually, lightheaded, she got to her feet. The big toe on her right foot jerked with pain when she shifted weight onto it. She drew in a deep breath, checking an impulse to snap at the younger boy. "Why don't you take my spot? I gotta go take a little walk before the grub's ready."

Iz's mouth opened in the beginnings of a protest. He thought better of it before he spoke, and after a few seconds of casting about, asked, "Hey then, Arlie, want me to roll one for you?"

Philippa hesitated, not wanting to hurt his feelings further. Other people's hurt feelings came back to haunt you. "Well, yeah. If you want to. I might smoke one later."

His pinched expression brightened. "Swell. After supper, maybe."

Feeling trapped, she nodded, and turned to find her way out into the airy dimness beyond the sawdust barrier.

"Peaches," a boy's voice groaned in reverence.

Philippa couldn't tell who had spoken. The space was lit only by the firelight that escaped through the partly open hole that served as the oil-drum stove's door, and the boy was somewhere on the dark side of its bulk. Laying back on the sawdust to give her aching stomach plenty of room, Philippa gazed up at the battered Orange Nehi sign that formed part of their ceiling. Idly she followed the curve of the raised letters.

Supper had overwhelmed her. There had been sausage soup and real cornbread with a brown, crisp crust—as much of all of it as anybody could eat. And then when Philippa had stuffed down more than she knew was good for her, Mara lifted dessert from the other pot: a steamed pudding laced with sweet canned peaches. Philippa hadn't tasted food like that since a farmwife had invited her in to share the family's dinner back whenever it had been—early July, she thought. Hot as blazes and deadly dry, she remembered. They could use some of that heat now.

Nobody had talked much during the meal; there'd just been the sounds of enthusiastic eating, of sapwood popping in the stove and an intermittent piercing whine Philippa thought was maybe the bitter wind finding its way through cracks. Now at least some of the 'bos were coming out of their stupor.

"I picked peaches in Alabama last year," a lanky, horse-faced boy said, the one who'd been playing checkers with Nob when Philippa'd first come in. "Hell, I might have picked these ones we just ate."

Philippa drifted, visualizing the orchard back near home, along the river about an hour's bumpy ride outside of the city, tasting again the warm juice that spilled down her chin from the ripe fruit.

"Leastways I picked 'em for a couple of days, until a bunch of blacks gets together and run us tramps out," the boy continued. Drink, she thought his name was. "Said we was taking food from their kids." He sighed.

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

"Yeah, well, you probably was, brother," someone chided him.—Tulsa, his chipped tooth showing up in the light.

Drink waited for a minute, then replied. "We all got to eat, Tulsa. Them and their kids and me and you. What you gonna do when there ain't enough to go around?"

Another voice chimed in—Karl's, Philippa was pretty sure. Even a heavy meal didn't slow him down. "Yeah, but there is enough! There's crops rotting in the fields some places; you seen it from the boxcars, same as me. And we gets nothing but beans and misery in the damn missions, while Hoover sits on his fat keister up in the White House doing nothing."

"Not for much longer," Nob commented in his raspy voice. "Election coming up."

"Hell, Karl, at least you guys get beans. Me or Mara or Arlie here go to a mission and we get jailed for whores, or a one-way ticket back to whatever hellholes we come from." Betts' voice was hoarse and short on patience. Feverish during supper, she had eaten nothing but the soup, and most of that broth.

"There's plenty in the fields and, jobs or no, there's plenty of work for us. We can make this land a paradise," Simon said from off near the doorway, conviction singing in his deep voice.

"Yeah, brother, there's work one place, but no money to pay anybody to do it," Drink grumbled. "And somewhere else there's food aplenty, but no work to trade for it, and no money. It's money's the problem. Damn bankers are sitting on all of it."

Simon turned to look at him, his hazel eyes shining with fervor. "Think about it, Drink. Money's nothing but pieces of paper, or metal you can't make anything useful out of," he responded calmly. "Let the bankers have it. They and their money can't touch the kind of changes we can make." Startled, listening from the edges of the talk, Philippa tried to make sense of this idea. Money in her pocket was the only kind of security a road kid had.

Jimmy leaned forward eagerly. "What is it we really need? Food and shelter. Clothes. Other people. Once we've got those things, what would we need money for?" His slight accent thickened as he spoke.

Karl sniggered. "For smokes?" he suggested, but not very loudly.

"A roof over our heads that don't leak, and food on the table; decent clothes to wear and decent work to do and folks to do it with: That's family; that's home." Tulsa's voice was weary. "We ain't got 'em, Jimmy. If we ever had 'em, they're long gone." His bleak gaze challenged the red-haired boy. "You telling us you can take us home again?"

Tulsa's words shook Philippa. She had had those things once, she thought, though sometimes she didn't believe the memories. Back before everything got hard, and Meemaw worried herself to death trying to make ends meet, the year of the Crash. Before the county'd sent her off to live with Corinna and Hank.

"Bull!" Lefty's rough voice barked, before Jimmy could answer. "I've had enough of this pie-in-the-sky crap you Reds keep handing us. Feel like I'm flopping at a damn sky-pilot mission!" Jimmy was left with his mouth hanging open, looking hurt.

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

"He's not trying to tell you it's easy, Lefty," Mara said, coming back into the circle of warmth from a brief trip out. Her round cheeks were pink from the cold outside the camp barrier, her expression determinedly serene. "But you've got to have the vision even to begin. You've got to hold it in your mind, and then you've got to share it around until there's enough of you to change things." She crossed to where Jimmy was sitting, kneeling down to whisper something in his ear. Her calm front slipped a little; worry showed in the tense curve of her back.

There was an odd, nose-wrinkling smell in the air, Philippa noticed all of a sudden, and a tight, electric edge to things that didn't come from conflicting opinions. It felt kind of like a thunderstorm building, which didn't make sense. But then, cold this deep at the end of September didn't make sense either.

Jimmy quietly slipped out through the gap.

She'd noticed that same smell when she first came into the icehouse, Philippa remembered, but it was a lot stronger now. And the wind was up again, too.

"Nuts," Lefty muttered, and shifted uneasily. "It's no use trying to talk to you guys. You got your heads up in the clouds somewheres. Me, I just want to get by."

"Oh, put it on the low needle for tonight," Betts pleaded. She had already stretched out on a makeshift couch scooped out of the bulwark. "I just want to get some sleep."

Mara surveyed Betts in concern. "She's right. Anybody wants to talk, keep it down. Nob, you won the tournament again, right?"

Nob's teeth shone briefly. "'At's right. Means I get to do the dishes; I know."

Mara smiled at him. "Yeah, and Karl can help you. Dishpan and stuff's hanging over there." She pulled a bandanna out of her back pocket and dunked it in the tub of meltwater. Squatting down next to Betts, she wrung it out and laid it across the girl's forehead. Betts twitched irritably away from the trail of wet that dribbled across her cheek, but then let Mara smooth the cloth into place.

Mara asked Betts something in a quiet voice. Philippa couldn't hear the question or Betts' mumbled answer, or the reassurance that followed; nothing but the tones of voice. She was glad someone was helping Betts, whatever help any of them could offer. At the same time she felt a gnawing dissatisfaction, a restlessness that brought her to her feet. Maybe it was the tension in the air, or the sound of the wind shaking the walls with renewed fury, though it felt like it came from inside her.

The throbbing toe and her uncomfortably full stomach made walking unpleasant, but she headed out into the dark anyway. Behind her, Iz called out, "Hey! Wait up!"

Philippa kept going, but he caught up to her within a few steps. "Hey, Arlie, you want that smoke now?" he asked eagerly. He fumbled a hand down inside his ragged green-and-black striped sweater, searching for his shirt pocket. "Got it!" He held up a skinny cigarette in triumph.

Philippa looked at the cigarette and then at Iz's face. Her braid had fallen forward when she turned, irritating her neck; impatiently she

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

shoved it back. A sound like distant buzzsaws started up between her ears, and there was a sour taste on the back of her tongue. "Lemme alone, Iz. I don't want the damn smoke," she said, her voice coming out harsh and cold.

The boy gaped at her, then his mouth snapped shut. Anger smoldered behind his eyes. Without a word, he turned on his heel and stalked back to where he'd been sitting. That tears it, a small voice in Philippa's head commented, but she didn't care. She started to leave again.

A broad hand caught her shoulder and spun her around. She banged her sore toe against something, and bit her tongue in order to not cry out. Lefty glared at her. "Hey, no need to be rude to the kid! He was doing you a favor!"

The bad taste seemed to run all the way down to her belly, a mingling of fear and nausea. Her shoulder burned where Lefty had grabbed her. With relief, she felt rage sink through her, the sour sickness turning bitter and icy as the wind outside. "Keep your goddamn hands off me, jackroller!" she hissed, leaning in toward his face, hardly able to hear her own words for the howling in her mind. Up close, his breath reeked of decay and onions.

The first blow caught her on the side of the head; the second clipped her jaw. She reeled backward into one of the support posts for the ceiling, but used it as a launching pad, charging headfirst for the knot in the rope that held up Lefty's trousers. Arms caught her short of her target, and held her tight, no matter how she twisted. "Lemme go!" Philippa yelled.

Other voices were shouting as well now. Someone grabbed her braid and yanked her head back to look at him. It was Tulsa. "Shut up, Arlie! Just shut up and calm down, will you?" Beyond him, Philippa could see Lefty, his arms pinioned by Karl and Drink. Water darkened Lefty's shirt where Karl gripped him; Karl still held the tin plate he'd been washing.

Mara stalked in between the two groups, her face pale and rigid. She looked at Lefty and then back to Philippa. Philippa quailed.

Mara spoke very clearly. "You guys want to fight, that's jake: just get your stuff and go outside, 'cause there's not going to be any fighting in here." Her sweeping gesture took in the frozen night beyond the walls. "Fight out there all you want. But neither of you comes back in until morning." With that pronouncement, she swept back to where Betts lay wide-eyed.

Sick and shamed and hurting, Philippa didn't want to fight anymore. "Lemme go," she said again, but this time she whispered it. Simon and the kid who'd earlier been sewing up his pants stepped away from her, letting her slip to her knees. Simon caught her gaze and held it for a moment, his hawk's eyes summing her up pretty small.

A few feet away, Lefty was free also, but not pacified. His narrowed eyes gave her promise of further trouble, down the road when the consequences weren't so drastic. Then he shook out the tension from his arms and shoulders, and turned away.

Philippa pushed herself upright and walked unsteadily out of the camp. Tulsa followed her this time.

"Let me look at what he did to your face," he said, standing in her way.

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

"In a minute, okay?" Talking hurt and the taste of blood was sharp on her tongue. Philippa turned her face away from his gaze, though there was little he could have seen in the thick twilight beyond the gap. Tulsa hesitated, and she spoke again, desperation edging her words. "Just lemme alone, Tulsa!" At last he turned and went back into the camp.

Philippa stumbled through the sawdust alongside the ice-chute ramp until she reached the wall. She needed something to lean on and the large stones of the foundation gave her this. They smelled of dust and felt like ice against her skin; she pressed first one side of her face and then the other against their rough surface, easing the throbbing of her bruises. Her scalp ached too, where Tulsa had yanked on it.

Philippa shook, standing there. Lefty could've hurt her, real bad; why did she do these things? And now Mara would figure her for a trouble-maker.

Sometimes she just couldn't take being scared of people any more, doing what they wanted her to, or running away. She thought of the punishment she would've liked to have inflicted on Lefty, felt the blows in her arms and knotted fists. An image of the resulting damage popped into her mind, unclear on details but very bloody. The sour, choking taste returned as bile rose in her throat, and then she was on her knees, retching.

Afterward, she rested her forehead once more on the stones and breathed carefully, trying to steady her mind. Cold air curled around her, slid by in a fitful stream, stirred up by the unabated wind on the other side of the walls. She found that she was shivering. Being out here long was like catching a ride in a reefer well-stocked with ice, and anyway, it was time for her to go and do what she had to do to keep Lefty off her back. Waiting didn't make it easier.

Limping back, she smelled again that peppery, axle-grease odor mixed in with the tang of the sawdust resin. A high squeal hurt her ears, but ended abruptly with a hollow pop. Startled, she looked around for the source of the sound. Yellow sparks flew up from the jumble of stuff in the southeast corner of the building, and traced a shower of arcs halfway across the icehouse.

And then the smell was gone, and the sparks, and the tension in the air. The wind seemed to have quieted for the moment, as well. Philippa stopped, confused. Had she imagined it, her eyes and ears playing tricks on her? In any case, it was gone now. Just to be sure, she poked at the woodpile by the bulwark, the closest place the sparks seemed to have come down.

Nothing. She turned back to camp.

As Philippa reached the gap, Simon brushed hurriedly by her, his strong-boned face tight with worry. She stumbled aside, then looked after him. She caught only a flash of a boot heel before the darkness swallowed him.

Iz wasn't going to look at her, though she was standing right in front of him. That didn't matter, Philippa told herself. It wasn't for him she was doing this. "I didn't mean to snap at you like that, Iz," she said, trying to sound like she meant it. "It was nice of you to save me the smoke."

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

Iz looked off to the side, scowling, and then, finally, up at her. He shrugged. "Okay." It was a grudging acceptance. At least it was unlikely he'd bother her again.

Philippa turned to Lefty then; that was harder. Without the armor of rage, she was frightened of him. "I'm sorry I called you a jackroller, Lefty." This at least was true. The older boy was a bully, and dangerous, but jackrollers—bums who rolled their own kind for what little they had—were the scum of tramp society.

Lefty, laying back on the sawdust of the bulwark, his hands laced behind his head, nodded without enthusiasm. If she hadn't apologized to his friend first, she wouldn't have got even that. For now, it was enough.

Still shaky, but relieved to have the ordeal over, Philippa hobbled slowly to the hollowed-out spot she had made along the far wall. Tulsa reached out to stop her as she passed him. "Okay, Arlie. Time to have a gander at your face. And the foot too—what did you do to it?"

Too exhausted to resist, Philippa let him guide her to the front of the woodstove.

Tulsa shifted the length of pipe that held the sheet iron door in place, so that more light spilled out into the room. "Get down where I can see you," he said, pulling her down to the stones of the platform. One of his fingers felt stiff; broken and healed crooked, she saw as his hand moved up to lightly hold her face. She held still, determined not to jerk away.

He probed the line of her jawbone and had her open and shut her mouth. "You bleeding?"

"Not anymore." The heat from the fire made her face ache worse.

"Bit your cheek, looks like." Philippa had already figured that. "And you'll have a nice old shiner by morning," he said, turning her head to the other side. "Okay, let's see the foot."

Obedient, Philippa pulled off her canvas shoe and ragged sock. "I kicked hell out of the big doors up there, trying to get in," she confessed.

"Nob's gone to get some snow," Mara said from behind her right shoulder. Philippa flushed at the sound of her voice, and tears came to her eyes once again. Automatically, she clenched her jaw to hold them back; the effort hurt, and she sucked air.

"I bump you?" Tulsa asked, glancing up.

"No."

Mara had moved around to look at her. Her fingers were short, with blunt ends, but gentle on Philippa's face. "Nothing too bad there," she concluded. "But the snow'll help. What did you do to your toe?"

Philippa looked down at the toe. Uncovered, it showed swollen and discolored. She tried to wiggle it; something grated inside the joint and she swallowed bile. "Kicked a door," she repeated, her voice faint.

"Looks busted to me," Tulsa said.

Mara nodded. "Well, snow will help that some, too, Arlie." She glanced over at Tulsa with a mischievous smile. "Looks like you two should hold off on that trip down south for a couple of days."

Philippa stiffened. "I ain't going nowhere with him or nobody!" she said, her voice shrill. She fought to make it sound more normal, knowing she was failing. "I go my own way."

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

"Okay," Mara responded, raising an eyebrow. "It was just a joke. But you should stay put for a bit anyway. Let's get you settled for the night, over there next to our other patient, okay?"

Embarrassed at her outburst, Philippa nodded. Tulsa, distant and careful now, helped her hop over to an unoccupied stretch of sawdust near Betts. Mara got her jacket and overalls down from where they were hanging and brought them over, along with her boots and the other sneaker.

Philippa began to wriggle into the stiff overalls just as Nob came back. "That damn wind's died down some," he reported, setting the can beside them, "but it's cold as a sonavabitch. Glad I ain't the one getting iced up." Shivering, he went off to warm himself at the fire. Tulsa followed him.

Mara helped Philippa settle with her back supported by the slope of the sawdust piled against the stone foundation wall. "Here, hold this on your face," she said, giving Philippa a handful of snow wrapped in a bandanna. Philippa pressed it gratefully to her cheek and jaw.

Mara made herself busy down by Philippa's foot. She propped the foot on a hastily raked-together heap of sawdust, and then packed snow around the toe. Philippa's sock held the icy stuff in place.

A shiver went through Philippa, but the throbbing in her toe eased.

Her doctoring done for the moment, Mara came to sit cross-legged by Philippa's head. "So what was all the fuss about, Arlie?" she asked quietly. "Facing off with Lefty and his buddies is pretty dumb."

Philippa felt the shaking start up again, a fine tremor just under the skin. Her mind had gone blank on top, solid as the skin of ice on the lake. None of the words underneath could break through.

Mara waited. At last she said, shrugging, "You don't want to talk, that's jake. I got other stuff to worry about. I'll be back later to wrap the toe up."

Philippa didn't want her to leave, didn't want her angry again. She grabbed for Mara's sleeve as the older girl started to get up. "No," she whispered. The soggy bandanna slipped to one side.

Mara paused, balanced on one knee, her dark eyes neutral.

"It's just, it's just there's too much. I can't get it to . . ." Philippa drew in a deep breath and tried again. "About Lefty and all, see, sometimes I just get so mad. Nuts, kinda. People want me to do stuff, act certain ways. When I can't they push at me. Sometimes I run away, but sometimes I get crazy."

Mara settled back down on her heels, but warily. "They want you to do stuff like what?"

Philippa shut her eyes for a moment, fighting panic. "Go with guys," she whispered. "You know what I mean. Like you with Simon and Jimmy. Or like Karl and Betts flirting. Everybody says 'get wise,' but I can't. I don't want to. I want them to leave me alone."

Mara's forehead wrinkled in confusion. "But I'm not with Simon or Jimmy, not like that. Is that what everybody thinks? We're a team, and I love them both, but not like that! It'd be like sleeping with my brother, okay?"

A ghost explosion flashed behind Philippa's eyes, almost like what she'd seen when Lefty socked her. Funny how words could do that about as well as a fist. Mara's comment hadn't been a direct hit, but close enough. Long practice allowed Philippa to slide the impact away, out of

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

sight, hiding most of its effects. She forced herself to let her breath out slowly. "Sorry, Mara."

"That's okay. Better to clear it up," Mara answered, matter-of-fact. She was silent a moment, distracted, listening for the wind it looked like. She turned to Philippa again and spoke decisively. "If you don't want to flirt with some guy, or sleep with him, Arlie, there's nothing wrong with that. Listen, a lot of the girls do it to get by, and because they like it, but you don't have to. If a guy gets sore when you won't, let him know he's out of line. Sometimes you might have to fight, but that's better than flat out insulting him so he socks you regardless." She stood up.

"Ice your face for awhile longer, Arlie. I'll be back." Mara dumped the remaining snow into the meltwater tub. Setting the can down next to it, she left at a deliberate pace, stepping around the kids who were already bunked out for the night on her way to the gap.

Dazed, Philippa watched her go.

Simon had never come back in, she realized after Mara disappeared through the gap. She couldn't concentrate on the thought, though. Looking around, she didn't see Jimmy either. He might be one of the figures bundled up on the floor, with caps pulled down and sawdust heaped up over their feet.

It wasn't enough. Mara hadn't really understood the whole thing, but then Philippa hadn't told her all of it.

—But could it really be true that the other girls were wrong, maybe not for them, but for her? Was it possible to go ahead and be friends with guys without them pushing at you for sex and attention and all the other stuff that got mixed up with it? It was the pushing she couldn't bear.

Would they stop if you told them to?

She didn't want to have to tell them. It wouldn't be an issue if they thought she was just another boy. Philippa yanked her braid out from under her shoulder, out where she could look at it. The brown hair was dirty, a lot of it coming loose from the plait. Still, when she had it tucked up inside a cap sometimes she had less trouble.

Meemaw had used to brush her hair every evening she got a chance. Philippa recalled the comforting pull against her scalp, and the occasional twinge of pain when the brush got caught. Meemaw's full voice saying, "Hold still, child. Lord almighty, but you're restless tonight!" The feel of her grandmother's fingers braiding the strands again, a lot faster than she could do it herself back then.

Blinking, Philippa let the braid slip from her grasp.

The air was colder now, or the snowpacks were cooling her off too much. She wiped the remaining snow from her face with the soggy bandanna, and dumped the mess off to one side. She wrung out the bandanna as best she could. Mara and them were still gone.

Tulsa came over from where he'd been talking quietly with Nob; it seemed the two of them were standing first firewatch. "Still awake, kid?" he asked, squatting down, balanced on the balls of his feet.

Tulsa at least was okay, so far anyway. Philippa gave him a weak grin, and sat up. "You wanna tell me how I coulda fell asleep with snow piled on my kicker? Anyway, Mara's gonna come back to wrap my toe." She

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

bent her knee to bring the injured foot in reach, and pulled off the insulating sock. There wasn't any snow left, just slushy water.

Tulsa smiled back, his uneven teeth flashing in his shadowed face. "Here, let me hang that up. You got you a dry sock?"

"Naw. I'll just put my sneaker back on." Philippa used the bandanna to wipe away most of the moisture on her foot. The toe was pink and still swollen, but numb. She pulled the shoe on gingerly. There wasn't much warmth in it.

With the wrung-out sock hung above the stove, Tulsa came back and crouched down by her again. "Anything you need? A drink of water, maybe?"

Philippa shook her head. "No, thanks." He didn't get up right away, and after a moment she asked hesitantly, "Tulsa? Is there something funny going on with them guys? Simon and Jimmy, I mean, and now Mara. They been ducking in and out of camp all evening, and now they're all gone at once."

He didn't say anything at first, just studied her until Philippa started to regret her question. Then he shook his head and sighed. "I got no earthly idea what they're doing. But they get this way sometimes, running around like their momma's dying in the next room. Can't say as I've seen 'em this bad before, though." He paused, as if considering whether to say anymore.

"I got this idea, see." He looked down at his hands as he spoke. "It sounds loopy, but you know that little bit of accent they got? Sometimes I think maybe some soviet over in Russia sent 'em here as organizers. And maybe they got a radio transmitter, or I don't know, fugitives or tommy guns stashed over in that corner where they don't want anybody to go." Tulsa shrugged. "Or, you know, could be some big labor council sent them, the IWW. Something like that."

Philippa considered this. "Yeah. Could be. Though I don't know why anybody'd bother with us."

"Well, like I said, it's crazy. But I can't figure anything else out." Tulsa shrugged again. "Don't matter anyhow. Even if their notions are kinda rosy—and they sure don't seem to get the idea of private property, or of bulls with guns and clubs—they're on our side, the little guy's side, and that's jake."

Philippa gave a small laugh. "I wondered earlier if maybe they was running a still out here. Guess your idea's not any crazier than that."

Tulsa looked at her seriously. "This here's a good spot to rest up for awhile. Probably best if neither of us go poking around where we're not invited."

Philippa woke when Mara tried to slip off her shoe. Without thinking about it she jerked her foot away; people who took your shoes off while you were sleeping were generally out to steal them.

Mara smiled at her. She looked tired and more than usually foreign in the uneven light, and the smile didn't lighten her eyes. "Shush, Arlie. It's me. I hoped I could get this done without waking you up."

"Umm." Philippa tried to make sense out of things. The air seemed

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

somehow heavy. She'd been dreaming, she realized: the wind, and a secret fire that ate across paradise, which looked like she used to imagine Canaan land in the songs. "It late?" she asked, and yawned.

"Not very."

Philippa rubbed a hand across her face, then looked around at their makeshift shelter, blinking away the sand in her eyes. Betts coughed fitfully, two warm bodies over from Philippa. Horse-faced Drink poked at the fire in the stove, while the kid who'd helped Simon grab her during the fight sat up near her, looking drowsy. Huey; that was his name. It was another whole firewatch later, anyway. Tulsa and Nob were bunked out, curled up next to each other for warmth. Nob's brown hat rested on the side of his head, keeping that ear from the chill air.

Guys could do that, huddle up with each other on cold nights, and it didn't mean anything.

Mara had got the shoe off and had placed a soft pad between the broken toe and its neighbor. Being touched made the toe throb again. Pulling her long shirttail out of her trousers, and using a small pair of scissors to start the process, Mara tore off a strip of cloth. She wrapped it carefully around and around the two toes. "This'll splint the broken toe, see," she explained as she tied the strip off. "You can walk if you're careful. Now where's your sock?"

Philippa pointed to the loop of baling wire above the oildrum stove. "Tulsa hung it up for me."

The sock was not only dry but warm as Mara pulled it over the injured foot. Philippa watched the older girl. The look of concentration on her face did not alter the anxious lines around her mouth.

"Mara, what's going on? Something's wrong, ain't it?" Philippa stopped breathing for a second when she heard her own question; the words seemed somehow disconnected from her. She hadn't intended to say them.

Mara's mouth tightened. She stared off over Philippa's shoulder. "Nothing's wrong, Arlie. Nothing you need fret about."

"Can I help?"

Mara met her gaze, a hard look. "Go to sleep."

Philippa tried again, taking an indirect tack, drawing on a confused memory of her dream. "Simon talked about this land could be a paradise. You guys really believe that?"

The older girl scowled. "I *know* that."

"And we all gotta work together somehow to make it that way?"

"Yeah." Mara sighed. "Listen, Arlie, I'll be glad to talk to you about this tomorrow."

Philippa persisted. "If we all gotta work together, and if what's going on has something to do with that, tell me what the score is."

Mara shook her head in exasperation. She was smiling, however, a real smile. "Go to sleep, Arlie." She stretched up far enough to lay a kiss on Philippa's forehead, a brush of dry lips. Meemaw had used to do that. Philippa lay still and held onto the warm, scary feeling.

"I know," Mara said softly but very clearly, "that there could be paradise here because where I come from is paradise already. And there's not any

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

difference in the basics. Same world, same dirt and plants and people. That's why we come, me and Simon and Jimmy and the others, to help you guys learn how to make this place what it can be. To spread the word." She looked down at Philippa for a moment.

"Sweet dreams, kid."

Philippa lay rigid and trembling, watching Mara go, wanting her to stay. Tears squeezed out of the corners of Philippa's eyes. She felt like a big scab had been ripped away, leaving her exposed as a mass of scraped flesh. Tulsa had said it: the place where your needs were met and your people were, that was home.

She needed to be there.

Hope was terrifying.

Eventually, she slept.

The shriek of a train braking to a stop woke Philippa, though she was confused to not feel the decreasing vibrations of the boxcar floor beneath her. Perhaps she had somehow fallen asleep next to the tracks? The cold, stale air carried a solvent reek like there was a tank car somewhere nearby. There were other sounds now that the train was still, a far-off wail or hum, an irregular pounding, and dry clickings like hobnailed boots on pavement. And voices. A bull's coming, she thought, panicking; I gotta get out of sight before he spots me. She struggled to sit up, and opened her eyes.

Dimly lit space; oildrum stove; the dark forms of sleepers. The icehouse. A wave of disorientation and nausea swept through Philippa. The hum and clicks continued, and the air still was tainted by solvent. This was wrong; she knew it, but couldn't make any sense of it. The suppressed thunder in the air, the wind's pounding, filled her head like a balloon.

But hadn't that tension gone away earlier, back when she'd seen the sparks?

No one seemed to be standing watch. The fire would go out. Philippa crawled to the stove and pushed the door far enough open to peek inside. The fire burned low and sullen within.

More wood, then. She would have to bring some in. Philippa dragged on her rubber boots, then used the crate table to pull herself upright. Standing, she found that a roaring sound came and went inside her ears, like the windstorm had gotten inside her head. After a moment, the roar went away again. There were a couple of other people sitting up, she saw now, though they seemed dazed.

The woodpile was on the other side of the bulwark, not far from the bottom of the ice-chute. She headed unsteadily for the gap, favoring her bad toe. She wasn't dizzy, exactly, but the floor didn't seem to be in the right place.

Karl stirred sluggishly as she passed him. He muttered something unintelligible through the racket in her head.

But there was another voice, weary and familiarly deep: "Yeah, I'm tired too. But the techs'll reach us in a little while. With this shunt in place, we can keep the vortex from building up so much it seals off the slip."

Simon, Philippa thought; I can get him to help with the wood. She

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

looked around for him. No one stood near her in the shadowy camp. "Simon!" she croaked, her voice little louder than a whisper. Karl groaned behind her, and sat up.

Simon's voice came again, his words clearer than before, though he was whispering. "Don't worry, Mar. One of the kids can cook breakfast. We'll make them let you sleep. You want to open us up a crack? I've got a feeling we've drifted." He sounded as though he was standing at her shoulder. "Dammit to hell! The slip's hanging out in plain view! Jimmy, I can't leave this. Climb down and tighten the correlations on the anchors before any of them wake up."

Philippa tried to make sense of this, but found that her thoughts seemed to chase each other in circles. She gave up; keeping the fire going was what mattered. She coughed; the heavy air stung as she pulled it back into her lungs. She tried yelling again. "Simon! Jimmy! Help me get some wood!"

That was a little better; maybe they'd heard her. The level of the sawdust beneath her feet rose and fell as she passed through the gap out into the larger cavern of the warehouse. She staggered, but got her balance back once she was on level ground. Rounding the bend in the mound, she saw a horizontal line of light, yellow-tinged and glowing. Philippa stared, while fear prickled in her belly.

The line thickened into a rectangle, a sort of a door with a lighted space behind it, hanging in the air perhaps ten feet up. It *wavered* somehow, jumped around like somebody'd given the movie projector a knock, only the image wasn't flat. It was as real as the doorway into your neighbor's house. Looking at it made Philippa feel sick. There was someone standing back inside the space, facing what seemed to be a wall, and two figures kneeling at the edge, all of them dimly backlit. Below was an angular tangle of shapes obscured by the light: the broke-down farm machinery. One of the figures slipped down carefully over the edge, letting himself hang free while his feet groped for a foothold among the cluttered shapes.

Red hair; Jimmy, sure enough. The other kneeler held his wrists; as she leaned out, light defined the side of her face for a moment. But Philippa already knew who she was.

Mara had said that they were from paradise. What could the lighted doorway be but the gateway back there?

"Something funny about the air in here," Jimmy's voice came, muffled but sounding more or less right for where he was. "It's thick and it smells like *kravle*."

Something wrong with the air? A back portion of Philippa's mind tried to put this together with how she'd been feeling, but most of her was already committed to action. She took a step forward, her hand out. "Hey! Where are you going?" she called out, and two of them turned slowly, as though sound took a long time to reach them.

Philippa saw their faces, Mara and hawk-nosed Simon, looking shocked and blind out in her direction. They hadn't planned on her being here—she could see that—but somehow she would get them to let her go with them. Mara would let her join them; she had to. Philippa hurried forward, but stumbled over something, a branch of prickly spruce loose from the

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

woodpile. Her outstretched hand broke her fall, sinking up to the wrist in soft, warm sawdust.

Warm. Almost hot. This close to the ground, a scorched smell joined the chemical reek. Her night vision was blown from staring up at the light—the slip, or whatever they had called it. The door. She could make out nothing down here at first. After a very long moment, it seemed that she could see a faint blue image that danced away before she could define it.

Danced like low flames over dark patches on the outer surface of the bulwark, next to the stacked wood. She *had* seen sparks earlier. She hadn't imagined any of it.

"Fire!" Philippa bawled, scrambling back from it. "Fire! Everybody out!" She turned and ran for the gap.

Behind her, after slightly too long a pause, she heard Simon exclaiming, "Fire?" And Mara's distorted voice rang out, "We're losing that shunt, Simon! Get your levels back down!"

And the light bloomed; a new, unearthly wind howled through the space, inside it, not out: a pitilessly well-lit chaos of whirling sawdust and paper and tiny scraps of wood.

Darkness, sudden as death. The slip, the lighted gateway, was gone, but the strange, static-charged wind was still trapped within the icehouse. Philippa covered her nose and mouth with one hand, and fought toward the gap as though there was safety with the others.

A pop, felt more than heard, was her only warning as the patches of burning sawdust, or perhaps a spark from the wind, ignited the airborne particles. Fire, the air itself burning, roared up behind her. Philippa dove forward; swam forward gasping through fire; breathed fire.

The light left her beached in its wake, but the fire stayed in her lungs.

"Come on, wake up! We gotta get out of here!"

Philippa opened her eyes. Someone was slapping her back. She breathed in, and tried to scream. Her throat and lungs felt flayed. She curled up into a ball, struggling to find a balance between pain and her need for air.

"Come on! You gotta move!" the voice begged her. "I can't haul you cause I gotta bring Betts." It was Karl. His clothes were charred in places, his eyes dazed. Betts lay sprawled where he had put her down, her lips gray, breath rattling in her throat.

"Okay, okay, I'm moving," Philippa whispered. "Go on." She raised her head and gazed around. The icehouse looked entirely unreal, a nightmare. The woodpile had become a bonfire and the heap of burning junk in the southeast corner had spread flames to the upper wooden walls. Small fires were everywhere. A few figures, made unrecognizable by the hellish light and drifts of smoke, moved hurriedly in the area around the fallen stove. There was no longer any ceiling above their camp, and not much of the bulwark.

She crawled to the ice-chute; there was no other exit. Her hair hung down into her face, ragged, obscuring her vision. She pushed it back but found it too short to stay behind her shoulder.

Ahead of her, part way up the chute, Karl choked and stumbled as he

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

reached the layer of smoke that hung thick and billowing above them. Unbalanced by Betts' limp weight across his back, he fell flat on the steep slope. His worn boots kicked frantically, trying to find enough purchase to boost himself and Betts to the top. Scrambling up behind him, Philippa grabbed one of his flailing boots and jammed it against the chute's raised edge. She held it in place while Karl got his other knee beneath him. Then the weight was off her straining arm and shoulder as Karl shuffled upward once again.

Halfway up the endless ramp she hit the smoke layer herself. Philippa's scorched throat and chest clamped up. She pulled herself another foot higher as vision blacked out, then rolled over the chute's edge, back down to the sawdust floor. She landed more or less on her feet, but let herself slide all the way down. There she dragged dirty air into her lungs regardless of the pain.

Uneven footsteps sounded on the ramp above. She opened her eyes: Nob and some other guy, hauling Tulsa between them. The roof had caught in three places. She stared at the flames until fear cut through her dazed exhaustion, no more than a few seconds.

Once more. She rolled to her knees and scuttled to the base of the chute. There she filled her lungs as best she could. Lefty staggered past her, with Iz dangling limply from his broad shoulders in the fireman's carry.

Not far, Philippa told herself; not far. Something large crashed down behind her, and she jerked forward like a sprinter at the starting gun.

No one could have called it running, but somehow, using hands as well as feet, she scrambled up the scored planks to the top; fell blind and wheezing out into the snow and still air.

Philippa huddled half asleep in the ashes between Tulsa and Drink, her head drooping toward Tulsa's shoulder. Once the fire was mostly out, they had taken refuge from the frigid night air back down inside the foundation of the icehouse, in the northwest corner that hadn't gotten used for anything before. The foundation wall wouldn't have made much of a windbreak, but the wind had pretty much died down. No beams or leaning uprights threatened them here and the stones shed heat for hours. Every now and then, one of the stones would crack, peppering them with sharp-edged fragments. Iz had gotten a bad cut over his left eye from one of these, on top of the burns and bruises they all shared.

Lefty and Karl, who'd recovered more quickly from the poisonous fumes generated by the burning sawdust, had dragged some charred remains of wall and roof over to their makeshift camp. Both boys had blistered hands from their efforts. They had a good-sized bonfire going now. Everyone was cold, but they were in no danger of freezing. There was plenty of material to keep a campfire going, for days if necessary.

It was Lefty who'd found the second body. The first body was Huey's, the kid who'd held her back during the fight, him and Simon. He was a towhead with a chunky sort of face who hadn't ever said anything that she could recall. One of the makeshift ceiling beams had hit Huey square across the back of the head as he slept. Philippa thought she ought to feel more about it, but she didn't feel much of anything but tired and hurting.

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

The second body had to be one of the Wobs, and probably either Simon or Jimmy, though you couldn't be sure even of that with what was left, Karl had told them. Lefty'd thrown up after calling Karl and Nob over. Nobody said anything to him about it, and probably nobody ever would. The three of them left the body where it was for the moment, as they'd left Huey's. The rest of them making it through till morning was what counted.

Karl now sat holding Betts' head in his lap. She still hadn't roused. Her color was better, as far as anyone could tell under the layer of soot, but each breath rattled in her throat, and heat radiated from her skin much as it did from the stones. "Pneumony," Nob had said, and Philippa thought it likely he was right.

Philippa tried not to look at the sick girl much; the sound was bad enough. Her own throat and chest hurt with each breath, and her voice, when she tried to speak, was a deep, hoarse whisper. Just scorched a little, she figured, or she'd be dead. A neighbor woman had sounded like this after their house had burned down, and her son had dragged her out. Her voice never had recovered; had ended up gravelly and not very strong.

Outside their small camp was utter silence, except when a piece of the building's remaining skeleton crashed down or a stone cracked. There was no wind at all any more, just a faint breeze every now and again that chilled her skin, but was otherwise unremarkable. Above them, off to the east, the sky seemed to be lightening a little. Once the sun was up and the bodies covered with loose stones, they figured to go wait for the westbound freight, back by the tracks.

"I don't understand how come I didn't find them other two," Nob said again, hunched over the burn on his arm. He'd gone back in looking for Mara and Simon and Jimmy, and almost hadn't made it out again. He'd lost his hat, and had tied a filthy blue bandanna over his balding head. "I swear weren't nobody left in by the stove. Nobody but Huey, anyway. Can't believe they'd all of them sleep out in the cold by that junkpile, no matter how fond they was of it."

"Maybe the bad air got to 'em," Drink suggested, listless.

Philippa listened, trying to summon the energy to speak. What she had seen and heard seemed dreamlike now, but too persistent not to be true.

"I seen 'em."

Tulsa and the others close enough to hear her turned to look at her.

"You did?" Tulsa asked. "During the fire?"

Philippa shook her head, feeling the charred ends of her hair on the back of her neck. Her braid had burned away; that was why Karl had been slapping her back. "Before. Right before. Karl, you was sitting up. You recollect hearing me yell?"

Karl frowned. "I kinda remember that. Yeah."

"They looked at me, and . . ." Philippa thought, trying to recall exactly what happened. "And I trip over something, and the sawdust's hot." She paused to breathe. "So I holler out fire, fire.

"Simon and Mara both say something. And blam, it just blows."

"What blows? Where were they?" Nob asked, a frustrated edge to his voice.

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

"Smack in the middle of it. Up in the air. Craziest thing I ever seen," she wheezed.

Everyone awake was staring at her now.

Philippa shut her eyes, seeing again the door of light hanging where neither door or light could possibly have been. "Okay. This is nuts, but I seen it. Big noise wakes me. Kind of a squeal." Drink nodded at that; perhaps he remembered it too. "Nobody else is moving, and I feel groggy. Fire's low so I go for wood. And there's this big light, like a box or a doorway, up over all that junk in the corner." She coughed, then wheezed until she had enough air to go on.

"They was all up inside it. Simon and Jimmy and Mara. Simon's talking about fixing something and being tired. Then he sends Jimmy down, 'cause he's figured out they was up where we could see them. Jimmy's got to change some settings; I dunno what. I sing out and they sees me. Then I find the fire. And Simon yells. And Mara does too, all panicked, and Simon's got to get his levels down." She stopped, panting, until she dragged enough air into her lungs to go on.

"And then it blows, whatever it is. Just gone." Philippa shrugged, looking down at her lap, seeing the spreading light, feeling again the crazy wind dragging at all her hair so it stood out away from her skin. The inside wind; the wind from somewhere else.

And outside had been the bitter, torn-loose wind that had hunted around the icehouse until the hole in the world cauterized itself. Gone now.

Nob was scowling at her like he'd bit down on a rock in a spoonful of beans.

"Nuts is right, you dumb cluck," Lefty said, disgusted. "Nothing over there but farm machinery and a couple big old spot-welders like in my uncle's garage. I know. I been all over that junk."

Dull anger flashed behind Philippa's eyes, making her head pound. They weren't going to believe her, especially not Lefty. She was a girl. Girls were supposed to be nice to guys and otherwise keep their traps shut. That was just how things were. There wasn't any point in arguing, but she couldn't let it drop.

"It's what I seen. You don't want to believe me, that's jake." Speaking, she found she didn't mind how deep and rough her voice sounded, but she hoped it wouldn't always come out so weak.

"Simon looked real unhappy about you being over there, Lefty, near as I can recall. But it don't matter anyway," Tulsa said wearily. "They're dead."

"I dunno," Philippa rasped softly. "Jimmy, yeah. He was sure enough in the icehouse with us when everything blew. It was him Lefty found, I guess. But maybe Mara and Simon're someplace else, someplace there weren't no fire."

Someplace without her.

Tulsa looked down at her, waiting.

She went on, without much hope they'd listen. "What Simon was saying: Paradise. Mara told me they was from there, that they come to help us make stuff better here." If their doorway blowing hadn't killed them, there was no reason they'd be dead. That Mara'd be dead. Philippa tried

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

to think about what Mara's home would look like, this place where everybody had enough and nobody would hound you. Where it was okay to keep yourself to yourself. She hungered to see it, to be part of it.

Nobody said anything, not even Lefty. Karl looked down, and his arm tightened protectively around Betts' shoulders. Across the ruins from them, over the heap of twisted metal, a sagging roof beam cracked like a gunshot; but they'd grown used to that. Philippa looked around the circle; it was easier to see faces now. There was more light coming from the sky than from the campfire.

Her neck itched from the stiff hair dragging across it.

Eyes met hers; eyes slid away, and all of them alive and grieving in the soot-darkened faces. All of them hungry with a need that shamed them, because there was no way to fill it. If this paradise, this home existed, the gate to it had closed.

Maybe Mara and Simon and Jimmy had been right, and you could build that here, but that struck her as a long stretch, and far too big a task to think about now, in the snow and ashes. She needed a home now. All of them did.

Grief and a solid determination knotted together inside Philippa, like a band around her aching chest. She fought for breath until the tightness eased up and determination won.

If there had been a door once, maybe there would be again, here or somewhere else. Something Mara had said made her think there were other openings. And if she were lucky, the feel of the wind might help her find one.

But not if she was scared all the time.

Philippa dug the penknife out of her pocket. She stared down at its cracked yellow casing lying on the sooty skin of her palm, and then pried it open. Pulling off her watch cap, she began the slow task of sawing through her hair an inch or so from the scalp, one lock at a time. She'd be colder without the hair, she thought, but losing the weight felt good.

A click sounded beside her, and she looked to find Tulsa holding out an opened jackknife, hilt first. Its blade was worn thin from honing. "Here," he said, "Mine's sharp. It'll go faster." ○

—For Thomas Minehan, who never let statistics get in the way of telling the children's stories.

WHAT IT COMES DOWN TO

The final crux
is quantum flux.

—David Lunde

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

Giza

Joe Haldeman

Joe Haldeman is best known for *The Forever War*, a novel that won the Hugo, Nebula, and Ditmar Awards, and is now considered a classic of science fiction. His latest books are *The Coming* and *Guardian*. His twenty novels, three story collections, six anthologies and one poetry collection have appeared in eighteen languages. Mr. Haldeman's mainstream novels *War Year* and *1968* are based on his experience as a combat engineer in the Central Highlands of Vietnam. The author teaches writing at Massachusetts Institute of Technology one semester a year. He is an avid amateur astronomer, who also paints watercolors and plays the guitar. His website is: *home.earthlink.net/~haldeman*.

I hope you already know all this. I hope it's nothing but a redundant, overly dramatic gesture. But in case there's nothing left tomorrow, in case the ones in orbit don't survive, there will at least be this record, buried beneath the rubble, sending out radio beeps for about a million years, until the power source decays away.

This is how it came about.

When we bred the first ghosts—giza, as they came to call themselves—there was a predictable outcry from conservative folk all over the world. Playing God, making monsters, yammer yammer. They do seem to have turned into monsters, after all, of a certain kind. Though they started out fairly human.

Nobody could argue with the practical aspect then, almost eighty years ago. If we were going to proceed with space industrialization, we needed people in space—lots of people, even though the physical work was done by machines.

Back then, you didn't normally keep people in orbit for more than eighteen months at a time. Even with mandatory exercise and diet supplements, most started to weaken and waste away before a year had gone by. But when we started mining the earthgrazing asteroids, the most accessible source of metals for space manufacturing, a merely year-long tour was out of the question. The rocks do come close to the Earth's orbit, by

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

definition, but they spend most of their orbits far away, and distance means time, and money.

We needed people who could live in space permanently. So we made some.

Biological engineering was perfectly legal and routine by 2050. Almost nobody in the most prosperous half of the world was born without some degree of intervention. Who would take a chance on having children mentally or physically crippled from birth? There were limits, in most of the world—you couldn't have a child born with four arms, in hopes of selling him to the circus, any more than you could today.

Unless you lived in Spain. Their starting-from-scratch revolution in 2042 left a huge loophole in local laws controlling how profoundly parents could manipulate the genetic makeup of their potential children. The Basques, forever proud of their difference from the rest of the world, took advantage of the law with a vengeance, first with children capable of superhuman athletic prowess, and then stranger talents. By the time the loophole was forced shut in 2063, there were Basques with wings and gills and tentacles, who could breed true if they could find mates. Most of them did.

Though banned from professional sports, there were other niches where the engineered Basques had no competition. Barrel-chested giants with uncanny balance carried girders in high steel. Thousands of arrain, the fat gilled ones, took over sectors of marine engineering and the fishing industries. And of course the ghosts took over space.

A normal human of average size needs 1800 kilocalories of energy every day just to lie in bed. That's about a loaf of bread. If you're up and working all day, you need twice as much. Working in null-gee, inside an asteroid, doesn't take as much energy as working on Earth, but you can't get under that 1800 k-calorie minimum. Unless you're very small.

The giza were not just bred small; they were bred weak. Spindly muscle and porous bone, so they needed only meager amounts of protein and calcium and phosphorous. They look like translucent skinny six-year-olds with adult faces on adult-sized heads, but ten of them use the same mass of food and water and air as one of you.

The first ghosts had mothers born on Earth, of course, but the first generation was born in low Earth orbit, in a small hospital-and-nursery satellite run by Hispania Interspacial. For consenting to such extreme genetic engineering, the families were paid 100,000 eurams per child, half in cash and half in a trust fund in the child's name.

It was not a lot of money at the time, in prosperous Spain—a down payment on a decent city flat—but the Basques didn't do it for the money, and they didn't want the city. They did want space, to conquer space, and they almost succeeded.

H.I. guaranteed each child a technical education, at their orbital university, if they qualified. If they didn't, or flunked out, there was room in orbit for people to do other kinds of work. The only thing they couldn't do was go back to Earth, against whose gravity they could hardly breathe, let alone walk. Even lunar gravity would be dangerous to their flimsy bones.

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

They lived fairly well, though, in the hive they carved inside the ferrous asteroid Quetzalcoatl. A small city was in place when the first ones arrived, and it expanded naturally, as the mining machines ground their automatic way through the iron and nickel.

It was spartan in many ways, but the Earth sent much of their required carbon, hydrogen, and oxygen in the form of food. They ate well. When it costs a thousand eurams to send a kilo of food, it might as well be caviar as beans. They had closed-cycle agriculture, too, so those kilos of caviar and paté and artichoke hearts became soil for less exotic fare.

The ghosts were able to bear children at the age of ten, and large families were rewarded, since H.I. needed workers, and it was expensive to orbit pregnant women from Earth. Their population doubled and redoubled. They doubled and quadrupled the number of machines, though, and honeycombed the asteroid, making interior real estate as well as profit for H.I.

Giza culture diverged from Earth's, most strikingly in religion: their terrestrial parents had mostly been agnostic or Nuevo Catolico, but the giza regressed to (or rediscovered) the Neolithic Basque worship of the Goddess, Mari, who, like them, lived in caves.

The discovery of warm fusion revolutionized ghost society; cheap space flight brought tourism into their otherwise closed economy. Earthling tourists brought money, of course, but they were also required to bring food, water, and air enough to support them during their stay—which resources of course remained within the asteroid's recirculating biome.

The stranger the ghosts appeared, the more interesting they were to tourists, and what started as a more or less cynical exploitation of this became a jarringly swift transformation of their culture into a kind of juvenile primitivism. A female could have six or seven children before she was eighteen, and many did. So you had children being led and taught by children, more or less supervised by a small core of technologically elite, who prospered from the display of the children's charming and strange naiveté, set against their high-tech environment.

And then it stopped. The ninth generation was sterile. Every single one of them.

To the giza, it was obvious that the whole thing had been set up from the time the first one of them had been delivered custom-made into space. They bred true down to the very last manufactured gene, and that last gene was a time bomb that doomed them as a species.

They had been invented, they said, to spend a century setting up a comfortable civilization in space. And then die off and get out of your way. You have always hated the Basques, anyway.

Ridiculous, the Spanish authorities said. Nobody could be so malicious and heartless. It had been an extreme experiment in an inexact science, and a mistake was made.

The ghosts didn't answer. The only communication Earth got from them was a continuous loop of a long prayer to Mari in an obscure Basque dialect. None of the tourists there got through to Earth, either, and none returned. We've just learned, in a final message, that they were all told to leave at once, and crowded into airlocks. When the warning bell rang and

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

the airlocks opened, there was nothing on the other side but vacuum. They may have gotten off easy.

For months, we heard nothing from Quetzalcoatl but recorded prayer. Then we saw that it was being moved, the giza using warm-fusion steering rockets to bend its orbit. When it became obvious that it was aiming toward Earth collision, we started to take measures.

Ghost psychology was not necessarily the same as human psychology, but the planners had known enough about human nature to allow for extremes. H.I. had a huge bomb capable of diverting the asteroid, in case a maniac got hold of it and decided humans should go the way of the dinosaurs. The diversion would destroy the asteroid and all its inhabitants, of course; still, the decision to launch was no decision.

But the giza either knew about the defense or had deduced it. When the bomb-carrying missile was halfway there, they sent a vicious farewell message and committed suicide, blowing themselves up.

It was a careful, calculated act. They had prepared the asteroid with their burrows so that rather than blowing apart into random fragments, it cracked into twenty-one pieces, any one of them large enough to doom life on Earth, all continuing along roughly the same path. Our bomb pulverized one piece.

The fragment blew up at night-time here, and it was quite a sight, as bright as the full moon for some seconds. We can't see its dark companions yet. I suppose the first and last thing people will see of them will be the bright flash of impact.

I'm going down into the basement of this building, turn on the beacon, and lock this record in its safe. Then I'll come back up and wait for the light. O

MOVING?

Please send both your old and new address (and include both zip codes) to our subscription department:

ASIMOV'S SCIENCE FICTION
P.O. Box 54033,
Boulder, CO 80322-4033

or fill out the change-of-address form on our website:
www.asimovs.com

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

This final story from the wonderful Hugo- and Nebula-award winning author, Charles Sheffield, who died in November, is a science fiction mystery tale that takes a compelling look at a peculiar murder in . . .

THE WASTE LAND

Charles Sheffield

Jeff King groped at his belt and wondered what mad impulse had let him come here without his gun. Or without his partner, who should have been covering him from ten paces behind. Or without his sanity, which he must have left at home.

The alley was one he knew well. It led from Pennsylvania Avenue through to H Street. There were lights, but at midnight they were dimmed. Even so, it should still be easy to see anybody in the alley—except that night cleaning staff for neighboring buildings used the narrow throughway as their private parking lot, and any of a dozen vans and pick-up trucks could hide a man—or woman—crouched behind it. All he had seen was a running black-clad outline.

Jeff moved forward, carefully and slowly. He could feel his heartbeat, the pulse fast and irregular. The alley was perfectly quiet.

Then suddenly it wasn't quiet at all. A telephone was ringing—his own phone, whose presence made about as much sense as the absence of his gun.

Jeff jerked upright. Instead of midnight in Washington, DC, he opened his eyes to the clear pale light of an Idaho dawn. The ringing phone was the one at his bedside. As he reached for it his heart felt ready to jump out of his chest.

"Security?" said a woman's nervous voice.

"Yes." Jeff shouldn't be getting a call at home, Johnny Talbott was on duty. What time was it, anyway? He squinted at the clock. Five forty. "This is Security. Jefferson King speaking."

"This is Lauren Begler with Remediation."

"Yes?" Meaning, I never heard of you, and why the hell are you calling me at this hour?

"I'm in charge of the Number Three Nuclear Waste Section. We have a

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

survey operation going on in Site 62, as part of the Snake River aquifer tests. Two of my staff were out on a night run, checking reference points with a GPS terminal. When they were driving between two corner markers they saw something and went for a closer look. It was a body. A dead body. They called me."

"Sweet mother." Jeff was already looking around for his shoes. Eighteen years of habit made him say, without thinking, "Natural causes?"

"I don't know. I haven't seen the body—I'm heading out there now. But my staff don't think so. They say there's something very peculiar about it. Should I call you when I see the—the dead person? I thought you ought to know about this as soon as possible."

"Smart thinking. No need to call me, though—I'll be there myself. Give me driving directions."

"Wonderful." The relief in her voice was enormous. "If you like, I could pick you up and drive you. The area we're talking about is quite a way north."

"Give me ten minutes. You know the corner where the roads meet near Central Facilities, just past the gym? I'll be waiting."

Jeff used two of those ten minutes sitting on the bed, waiting for his heart to steady. A body. No wonder Johnny Talbott had passed Lauren Begler on to him. "Security" at the Idaho National Lab usually meant somebody failing to lock a safe at night, or maybe taking a document marked "Secret" home in their briefcase to read at night. Bodies, especially ones where natural causes could not be assumed, were nowhere in Johnny's universe. But Johnny was sure that Jeff, with his big-city long-time cop experience, thrived on them.

Jeff dressed quickly, buttoned up his long overcoat, and went outside. It was partly his own fault. When you sat for many hours in an office with someone, and the most exciting thing that came along in a week was a new set of security Regulations and Procedures, you tended to color your past a bit more lurid than it had been.

Jeff reached the corner and stood waiting, wishing that he had insisted on time enough for hot coffee. In mid-June the Idaho nights were still cold, and the sun was barely up.

Even without artificial coloration, his past had been exciting enough. Too much, in a way. The doctor who had examined him in Washington four years ago hadn't left room for doubt. "Hypertension, and heart arrhythmia. And you're overweight. Stay in this job, where it's greasy meals or missing meals, constant stress, and running on adrenaline at all hours, and you won't need to worry about what you'll be doing after your retirement."

So you took that retirement early, applied for a job at Bechtel, and with a little help from the fact that they had few blacks in security and fewer still out on the Idaho facility that the company managed for the Department of Energy, you found yourself a cushy job where the stress was minimal, the scenery was gorgeous, and the fishing was spectacular. Where you would never find yourself out at dawn, with your heart pumping a mile a minute, waiting to go off and view the body of a man who had died of possibly unnatural causes.

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

Had Lauren Begler said a man? Jeff felt sure that she hadn't. On the other hand, he felt just as sure that she definitely would have told him had it been a woman. When you had been in police work long enough, what people didn't say and didn't see was as informative as what they did.

Lauren Begler rolled up, two minutes late, in a beige Ford Explorer. She was a long, lanky woman, a pale redhead of about forty. She nodded to Jeff as he climbed in and handed him a sixteen-ounce cup.

"Coffee. I took an extra minute. Hope you like cream and sugar."

"You've saved my life." And forget the fact that he was supposed to strictly limit his caffeine intake. Even if you did everything the doctors told you, you still died someday.

The road north was deserted. She drove well, she drove very fast, and at first she didn't seem inclined to talk. That suited Jeff. He hunched in his seat, drank coffee, and watched the rising sun play on the landscape of southeast Idaho. He was learning to love this place. Everything was peaceful, everything looked harmless. You had to remind yourself that this area had contained the world's biggest concentration of nuclear reactors—more than fifty of them—and back in the 1940s and 1950s people hadn't been careful enough with radioactive waste products. The whole area, close to a thousand square miles of it, was dotted with nuclear hot spots. That's what Lauren Begler's remediation team was doing: locating every problem spot in an area almost the size of Rhode Island, removing and containing the worst of the nuclear waste, and then—cross your fingers when you said this—finding a safe place to store it for a long time. A *very* long time. Some of the radioactive isotopes in the waste had half-lives of many thousands of years.

The car phone rang, making Jeff jump. Lauren Begler picked it up, listened, and said, "That's good. Who else?" And then, after listening for a few seconds, "Five more minutes, if I push it a little harder." She glanced at Jeff and said, "Don't touch anything?" And, at his vigorous nod, spoke into the phone again. "Yes, I know the body was touched already, but don't touch anything else."

She put the phone back in its cradle. "Walden and Bronsteed, my staff people who found the body, say that they just had a call from RHR—the Radiological Hazard Research group."

"How did they find out about it?"

"I called them. Right after I called you, Walden phoned me to say that the body had an ID tag and was wearing a radiation monitor. It's a man named Frank Lazenby. He worked for RHR." She glanced at the speedometer, which showed seventy-eight, and pressed the accelerator.

"Any other information about him—Lazenby?"

"Not about him. But the film on his radiation monitor was black from end to end."

Jeff said, "The place we're going, the place where they found him—"

"Not a problem. Walden's a careful man, and he's been around nuclear radiation sites for a while. Their van is equipped with counters. The first thing they did, even before they approached the body, was check radiation levels. Lazenby wasn't in a hot spot. Apparently the count is even below typical background levels."

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

Jeff, in spite of his three years in Idaho, was still a member of Scared Joe Public at heart. The world had changed a lot since the residents of a town just south of the test site had proudly named it "Atomic City." The words "radiation hazard" made Jeff very uncomfortable. Lauren Begler sensed that, and went on, "Mr. King, I know you must have seen maps of the lab site with 'hot spot' written all over them, but it's all relative. Even in the worst places, locations where illegal dumping of highly radioactive materials was performed thirty or forty years ago, short-term exposure would do nothing. Years of exposure produce awful results, because the effects are cumulative. But the dose a person might get in a few hours wouldn't hurt."

But something killed Frank Lazenby. And something turned the film of his radiation badge to solid black.

Jeff kept those thoughts to himself. He felt that most people at the facility had too casual an attitude toward nuclear radiation. Perhaps it was just that kind of attitude, thirty and forty years ago, that led to maps today with "hot spot" labels all over them.

The Explorer left the road and headed up a hill of eroded volcanic lava. Lauren Begler eased off the gas only a little, and Jeff bounced around in his seat as the car hit potholes and buffeted across narrow cracks. If a person didn't have a heart problem when they started out on a trip with Lauren Begler, they'd sure have one after it was over.

The car crested the hill, going briefly airborne, and plunged down the other side. Finally, the brakes went on and the last quarter of a mile was one long skid. A controlled skid, though, because the car finished parallel-parked next to a white van marked with hand-painted lightning bolts on the side like the front of Captain Marvel's shirt. Two men were leaning on the hood, smoking.

Lauren Begler was up and outside the Explorer while Jeff was still trying to unbuckle his seat belt. He took his time, and when he joined the other three one of them was pointing away toward another dip in the land.

"About four hundred meters thataway." He was short, with a dark ponytail and a Mexican bandit mustache. "We moved the van to here because we were in a radio dead spot. You probably heard the interference when we called you."

"Right. And you didn't touch him any more, after you found his ID?"

At the man's firm shake of the head, Lauren Begler turned. "This is Sergeant King. He's with security. Before that he was a cop in Washington."

The two men looked at Jeff with new and what he suspected was unjustified respect. He had noticed it since his first day in Idaho. Mention that you had been a cop in DC, and people assumed you dealt daily with muggings, murder, and mayhem. Sometimes that was true—Jeff had the scar of a bullet wound in his left calf, if anyone wanted proof. But mostly the daily and nightly rounds were drugs, drunks, and driving tickets. The big frustration was the number of people protected by cars with DP plates and by diplomatic passports, which made them untouchable no matter what they did.

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

Jeff held out his hand, and the mouth beneath the bandit mustache spat out the last inch of a hand-rolled cigarette, grinned wide, and said, "Wally Bronsteed."

"And I'm Pete Walden." The taller man also favored a ponytail, had a scar on his chin, tattoos on each forearm, and wore a striped shirt with a bolo tie. His grip was as strong as Jeff's. "Ready to see the scene of the crime?"

Both men sounded as though they were enjoying themselves, but that didn't make them suspects. Jeff pegged both as retired Hell's Angels, settled into a life that allowed them to work almost all the time outside. Maybe "respect" was the wrong word for the way they had looked at him.

"May be no crime. But show me."

"Right." Walden picked up a counter and led the way to the little fold in the hills. Jeff decided that Lauren Begler was right, Walden and Bronsteed might look like a couple of live fast/die young buzzheads, but when it came to their work they were cautious. Jeff approved of that—and of the fact that the radiation counter didn't give out a single click while they walked. No one had been dumping hot waste around here.

That changed as they walked farther down the slope. The clicks began, at first just an occasional one, then more frequent.

"Nothing to worry about." Lauren Begler had seen Jeff staring at the instrument. "You could camp here for months and be just fine. The radiation level back where we started happens to be unusually low."

Jeff nodded, but his attention was elsewhere. He had just caught sight of a splash of bright green at the bottom of the shallow valley ahead.

"I thought you didn't touch the body after you made an identification."

"We didn't. But we covered him with a ground-sheet." Wally Bronsteed made a circling motion with his finger. "Buzzards."

Jeff stared up. He saw no hovering birds, just blue sky and patches of broken clouds far off to the northwest, where Saddle Mountain reared its head above ten thousand feet. But Wally and Pete had the right idea. Eyeless, flesh-ripped corpses were not a work hazard of the DC scene, but they might be here.

"Stand back while I take a look."

A look for what? Footprints? There was no way they would show on the dry, hard ground. In any case, in eighteen years of police work Jeff had never found footprints to be of the slightest use. He had the distinct feeling that he was out of his depth as he bent forward and carefully peeled back the covering sheet.

Frank Lazenby lay face down with his head toward the north. His back showed no signs of a wound. When Jeff leaned closer he felt sure there would be none anywhere. Lazenby's face and hands were a bright and unnatural purple. A man's face might turn that color in an apoplectic fit, but the skin of face and hands was also covered with swelling fluid-filled blisters.

He turned to Bronsteed and Walden, who were showing a lot more internal fortitude than Lauren Begler. She had turned away and looked as if she might throw up. On the other hand, the two men had seen the body before. "This is what you meant when you said he looked peculiar?"

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

"Yep." Wally was smoking again, a skinny hand-rolled cigarette made from strong tobacco that burned blue in the clear morning air. "Looked like that when we first got to him."

"How did you come to see him at all? It must have been dark."

"Could hardly miss him. We were checking marker points and coming right down the middle of this valley. I was driving, but me and Pete both spotted him at the same time."

"He was just like this?"

"Yep. We figured he had been walking north. There's a station with a field phone a mile away. When he couldn't walk no farther, he fell on his face and died."

"So whatever happened to him, it was back in the direction where you parked the van?"

"That's what we figured. That's why we drove that way. Didn't see a thing, though."

"What did you expect to see?"

"Wasn't sure. But you know what? We had an idea." Wally glanced to Pete Walden for support. "The way Lazenby looks, it's like them cases you see in training films, where they want you so shit-scared of radiation you won't take risks ever. They show you pictures of people who were in accidents and got huge doses of radiation. They got pictures from Chernobyl of the men who were right in the death zone when the reactor blew. They died quick, like, in just a few minutes or a few hours." Wally pointed. "That's sort of how they looked."

"Yeah." Jeff had seen those same movies. They had made him feel sick, and he was no stranger to unpleasant forms of death. "You checked radiation levels all the way when you moved the van south?"

"You bet your ass we did. Wouldn't you, after you'd seen him? Clean as a whistle, not enough radiation to tickle the counter. And there's no radioactivity on the body, either, even though the film on his badge is solid black. What happened, Sergeant? How did he die?"

Means, motive, opportunity. Jeff had been a street man and a legwork man; homicide and detection were far from his line of expertise. On the other hand, you couldn't watch a cop show on TV for more than ten minutes without knowing those basics.

Opportunity was easy—out in the middle of the test site, at night and miles from the nearest people, anybody could have killed Frank Lazenby. But motive? And, above all, means? Somebody had to have popped Lazenby inside the pressure vessel of a nuclear reactor for a few minutes, long enough to provide a huge and rapidly lethal dose of radiation; then they had to fly him out to a deserted region of the Idaho test site, drop him down, and let him stagger forward for the time that the radiation took to cook his bones.

Jeff squatted back on his heels and looked all around him, at the rolling empty scrubland. Then he turned back to the other three, waiting expectantly for forensic wizardry. "We'll have to wait for an autopsy, and confirm cause of death. But I'll be honest with you. Even if it's radiation overdose—which it sure looks like—I don't have one idea in my head how it could have happened."

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

* * *

Jeff had never been involved in a security issue anything like this in his three years in Idaho. He didn't even know who had jurisdiction. The Lab was federal property, the whole area forming a protected enclave from which the general public was excluded. Even inside, there were restricted buildings and areas, where entry required high security clearances. A few employees worked directly for the federal government, but most people were on the payroll of Bechtel, who had the facilities management contract.

Jeff was not the only one with questions. The head of security, Tom Markin, spent all morning on calls to DOE Headquarters in Washington, then called a midday meeting of his staff.

Markin was a tall, moon-faced man, over six-six, a longtime company employee who had lost the lower part of his left leg in some childhood accident. Jeff had sized him up during their first interview and decided to steer clear of Markin whenever possible. The head of security had a no women-and-children-first philosophy. Whoever went down with the ship, it would not be Tom Markin.

It might well be Jeff. No one would come out and say that Markin was a white supremacist, but they could certainly think it and hint to Jeff that he should watch his step.

He had, for three years, but today avoiding Markin was impossible. The meeting took place in one of Central Facilities' smaller lecture halls, big enough to hold all thirty attendees. Jeff, heading for the back row, had been stopped by Markin and placed right up at the front.

"The situation goes like this," Markin said. "It makes no difference if we are dealing with a suicide or a homicide, this death could involve issues of national security. Two days from now, we're going to be flooded with people from Washington. Not only DOE Headquarters, but FBI. It would be very nice if we could tell them, when they arrive or sooner, that we know exactly what happened, how, and why. I'm setting up a special task force to work on this, and a special charge number. Its members will be relieved of all other duties. Jeff King, who I think all of you know"—he gave Jeff a big, friendly grin—"will be in charge. Don't get in his way, and if he needs your help, cooperate in any way you can. Questions?"

There were many—what do we know about Frank Lazenby, what did he do, why was he out on the test site at night?

Jeff hardly listened. For one thing, Tom Markin didn't have any answers, and took a long time saying nothing. For another, it was clear to Jeff that the "special task force" was going to be isolated from the rest of security for a reason. If they succeeded, which at the moment seemed remotely improbable, Tom Markin would re-absorb them into the rest of the operation and claim credit. If they got nowhere, they were there to be pointed at as a team who had failed. It was no comfort to know that the other two people on the task force were marginal employees who had already received warnings for poor performance.

Jeff escaped from the meeting as soon as he could. Outside in the corridor he found that there was more bad news waiting for him. It took the shape of a pudgy woman in a white lab coat.

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

"Sergeant Jefferson King?" she said, as soon as he appeared.

"That's me."

"I'd like to talk with you about the death of Frank Lazenby."

He stared at her. She was black, with corn-row hair and rimless glasses. "You, too. I guess they hope to get rid of all of us at once, eh? No quotas under this administration."

It was an absolutely stupid thing to say, and Jeff regretted the words before they were out of his mouth.

The woman stared at him. "I don't know what you mean by that, and I think that I prefer not to ask. My name is Lassandra Kane, and I'm in charge of research for the lab—including Radiological Hazard Research."

She held out a hand. Jeff took it, feeling like a total fool.

"Frank Lazenby worked for me," she went on. "And just so we won't be blinded by stereotypes, I'm going to do what I hate doing and usually refuse to do. I'm going to tell you my background. I majored in physics at Texas A&M, fully-funded merit scholarships all the way; then I did a Ph.D. at Berkeley doubling with a position at Lawrence Livermore. Then two years post-doc at SLAC, the Stanford Linear Accelerator, working on decay modes of the superheavy elements. I *earned* this position. All right, Mr. King?"

She was looking at him expectantly. Jeff decided there was only one way to handle this.

"More than all right, Dr. Kane. And now for me. I worked eighteen years for the police in Washington, DC. I saw as much corruption inside the force and in the city government as I did in the streets. I was a good street operator, and the best when it came to legwork. That makes me well-qualified to serve as a general security officer here. But I never worked for homicide, and I'm as unqualified to investigate a murder from unknown causes as that there goldfish."

He pointed to the little aquarium along the corridor wall, where a pale and solitary fish goggled out at them. The sign above the aquarium read: "Department of Energy Idaho National Engineering and Environmental Laboratory (INEEL): Making our country safe for all forms of life."

Lassandra Kane glared at the goldfish for a few moments, then to Jeff's relief she burst out laughing.

"I can live with that. Knowing what you can't do well is something a lot of people never learn. But you're in charge of looking into Lazenby's death, aren't you? That's the word my office got from Tom Markin."

"I am."

"Are you free to come and go where you like?"

"So Markin says."

"Then let's get out of here, and find somewhere quiet where we can talk."

The weather had warmed up a lot since Jeff's early morning ride. It was a shirt-sleeve day, and he had put on a suit for the meeting with Tom Markin. He was glad he had, though he would pay for it now.

Lassandra Kane led him to a small blue hybrid-electric convertible. She seemed to be one of the few people at the Lab who didn't favor giant SUVs and pick-up trucks. That showed admirable concern for energy con-

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

servation, but had other disadvantages. Jeff squeezed into the passenger seat with nothing to spare. The upholstery was burning hot under his broad behind.

"I'll take us over to the breeder reactor site," she said. "I have an office there, and chances are better that we won't be disturbed. Why don't we start with basics. How much do you know about Frank Lazenby?"

"I never heard of him before. I don't think I'd even seen him around, though it was hard to tell just from looking at his body this morning."

She grimaced. "It was horrible. I had to identify him. If the cause of death was radiation burns, it was far worse than anything I've seen or heard of."

"What else could it be?"

She turned to give him a quick grin, and the sun glinted off her rimless glasses. "Aren't you supposed to tell me?"

Jeff judged that as a rhetorical question. "No wife, no family?" He would ask for a full background from personnel, but there was no harm in getting a head start.

"He must have had family somewhere, everybody does. But he never talked about them."

"A bad personal history, do you think?"

"More like just a very private person. Which he was."

"No women friends?"

She hesitated. "Define friends."

"Sex."

"Yeah, that sounds like a man's definition. No, no 'friends.'"

"Could be either a woman or a man."

"Still no. Look, I wouldn't want you to take just my opinion on this, but I think Frank Lazenby was one of those people who are natural neuters. I don't think he had any sex drive at all. There are people like that."

"So they say. I'll tell you, from my time as a cop I'd never have known it. In DC, the whole world is sex-mad."

"Even Congress?"

"Especially Congress."

They had reached the experimental breeder reactor site, which Jeff had driven past a thousand times and never been inside. Lassandra Kane parked in a spot labeled DIRECTOR ONLY, right in front of the main building.

"He's in Washington," she said. "Or he was, first thing this morning. My bet is he's on a plane to Idaho Falls this minute, heading back."

The office she led Jeff to was not what he had expected, given her position, and most of the space was filled with what looked to him like junk.

She saw his skeptical expression. "If you want to know where the real work gets done in a lab, look for trailing wires and duct tape. My office in the other building is all coffee cups, conference table, and projection screens." She cleared a monitor off a chair and gestured to Jeff to sit down. "Ask."

"How sure are you about Lazenby's private life?"

"Pretty sure. Though if it was *private* private, I wouldn't know. Why do you keep asking?"

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

Jeff wasn't sure. He organized his own thoughts as he answered. "Assume that we're dealing here with a homicide, by unknown means. If you look at the statistics, the vast majority of homicides are family matters—son shoots father, jealous woman stabs lover, husband kills wife during a messy divorce."

"Terrible."

"But true. Now, when I first asked about Frank Lazenby's family, I wasn't thinking too clear. It doesn't matter a hoot how well he got on with his relatives, because unless they worked here at the lab they'd have trouble getting anywhere near him. This place is pretty good when it comes to security. So we're looking for an insider. If it's not a lover, we're down to the next level of intimacy. Was Lazenby popular?"

"Too private and standoffish to be popular. But he wasn't *unpopular*."

"You liked him, didn't you?"

"Actually, I did. How could you tell? Never mind, every profession has its secrets. Does that make me a suspect?"

"No. *Why* did you like him?"

"Oh, that's a hard one." Lassandra Kane frowned at the monitor beside her desk. "Well, for starters he was smart. I mean, *really* smart, in a shy and quiet way. He didn't show it off at all, but in some ways he was maybe the brightest man I've ever met."

"Or woman?"

"That, too. The brightest *person* I ever met. But just being smart wouldn't do it. Some very intelligent people are absolute sons of bitches. The thing about Frank Lazenby, there was a sort of innocence to him. He believed in absolutes. The United States is the greatest country in the world. Our form of government is the best. Motherhood and apple pie and fireworks on July 4th, and people are fundamentally good and can be trusted. Simple things, and you might think they're old-fashioned. But I never knew Frank to do a mean thing, or say a mean word."

"Not ambitious?"

"That's a different and more complicated question. He didn't care about money, or titles. A couple of times he refused promotion, because he wanted to go on with his research and administration would get in the way. But in his work, he was as ambitious as you could get. Not for personal fame, you understand, but for worthwhile results. He always said that this country had been very good to him and given him a lot, and he wanted to give something back."

"Did he succeed?" Jeff was finding it harder and harder to visualize the sort of person who would kill Frank Lazenby.

"Oh, yes. He had over forty patents in the field of lasers and electronic detectors. They would have been enormously valuable in private industry, but of course here they all belong to the government. The only problem was getting him to talk about them."

"How can you possibly file a patent without talking about it?"

"Oh, he'd write everything up eventually—when he was sure that there were no unresolved problems. You know, everyone is supposed to keep daily notebooks, recording the status of their work. You should have seen Frank's. They were utterly useless. They revealed nothing but platitudes

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

and minor progress, until one day there would be a working model and a perfect paper on his desk. He couldn't publish in the open literature, of course, because of national security. But within the classified community he has a terrific reputation."

She stared shrewdly at Jeff. "You don't look too happy with any of this."

"I'm out of my depth. Show me a night club where two guys get drunk, argue, and one of them sticks the other in the street outside, I'll figure out who started it and who to charge. Here, there's no motive, no method, and no suspects. Hell, where Lazenby was killed there's not even a street to fight in."

"There's still a scene of the crime." Lassandra Kane turned to the computer on the desk. She hit a dozen keystrokes, and a color image popped up like magic on the monitor. "Want to see exactly where Frank Lazenby died?" A red cursor showed on the screen. "It was here."

Jeff stared at the picture. It didn't tell him one thing. "What is that?"

"A Landsat-7 image of the Idaho test area. Taken from space, seven hundred kilometers up, then ortho-rectified so we know exactly where each point on the picture is on the ground. What you're looking at covers about ten thousand square kilometers. Here's the test area boundary."

An irregular polygon traced itself on the screen. Jeff recognized the shape from maps he had seen. "How did you do that?"

"It's not hard. The Landsat image and the boundaries are layers in a GIS—a Geographic Information System. You can enter different kinds of information into the computer as different data layers, registered to a common reference frame, and overlay them on each other. Like this, for instance." A series of closed curves appeared, black outlines on the monitor. "Altitude data. Important if you care about water run-off and land use."

"Does this have anything at all to do with Frank Lazenby's death?"

"Believe it or not, it does. The Landsat image is just a kind of background, to give the user a feel of where you are. The data that we care more about for our work are these." A grid, regular and close-spaced, jumped onto the image. "What you are seeing is the overall radiation level at each grid point."

"You can measure the radiation value from space?"

"I wish. No, this is the result of thousands and thousands of hours of ground measurements. And what you are seeing has been simplified for display purposes. The real data provide dose rates to one percent or better, but we only use eight colors on the image. Blue indicates low-dose, and red means a bad hot spot that we need to worry about in the remediation program for nuclear waste clean-up. So, for instance . . ."

Her voice trailed off. Jeff had been following her technical explanation—just. However, he found the puzzled tone in her final words far more significant.

"What is it? You've seen something, haven't you?"

"I don't know. But this is strange." She moved a cursor on the screen. "There's where Frank Lazenby's body was found. Didn't you say he was walking north?"

"It looked that way, from the orientation of the body."

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

"Well, look at the radiation data to the south. Every grid point is red for the next kilometer."

"So he would have been in danger, walking that way?"

"Oh, no. We've taken care of the very worst clean-up. You can walk through the hottest hot spot on the Idaho test range, and not be hurt. But Wally Bronsteed and Pete Walden drove that path this morning, and they reported that the radiation levels were all *below* normal."

"They were. I was with them when we walked back from the van to Lazenby's body. The radiation counter didn't click at all. Is that telling you something important, Dr. Kane?"

"Perhaps—but I'm afraid it's not something relevant to the death of Frank Lazenby. It just means that the grid mesh in the area is too coarse. You see, ground measurements were only recorded every two hundred meters. In the area south of where you found Frank's body, those grid point measurements indicate high radiation levels. But you walked along a path about halfway between grid lines, and you found low radiation. It means we need a finer grid, because we're missing local highs and lows. I'd better get onto that—it could affect our whole remediation program."

She spoke as though what they had seen ended the discussion of radiation levels where Frank Lazenby had been found. It seemed to Jeff that he would have argued exactly the other way. Finding low values where a data base told you to expect high ones suggested something odd, something that needed to be looked into further.

Unfortunately, that sort of exploration was far beyond Jeff's powers. He pushed the discussion back toward the only area where he might have an edge over Lassandra Kane: people.

"The place where we found Frank Lazenby's body is twenty miles from the building he worked in. Assuming he didn't walk there, somebody must have given him a ride. You say he was a solitary and private person. So who?"

"I can't give you a definite answer, as you very well know. But the fact that Frank was a loner actually helps. He had his own office, but he shared a small laboratory with three other people. Dr. Willoughby, Dr. Watts, and Dr. Schaefer. He didn't mix much outside that."

Wall-to-wall Ph.D.s, but after three years Jeff was used to that. "Would those three know that he is dead?"

"Not from me. But that sort of news travels fast. I'd guess they do know, along with almost everyone else at INEEL."

"Then I'd like to interview them. All at once, if that's possible."

"Wouldn't it be better to talk to them one-on-one? You know, to check consistency."

"I'm more interested in observing how they relate to each other—how they watch each other."

"I guess you know your business. Is it all right if I sit in?"

It was a difficult question. Since Lassandra Kane was the general head of research, they worked for her. But were there things they might be reluctant to say in her presence?

"I'd rather do it without you. I'll promise this, though: anything I learn, I will tell you. And my questioning will be informal."

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

She stood up. "As I said, you know your business."

Jeff wasn't at all sure that he did.

"They're over in the Radioactive Waste Management Complex," she went on. "I'll call and say who you are, and that we are on the way over. We could walk, but if it's all right with you, we'll drive. Since I won't be involved past the introductions, I want to head over to where they've got Frank's body."

"An autopsy?"

"There has to be, but it's on hold until we hear from Washington." She made a quick phone call, then led the way back out of the building and over to the blue convertible. Jeff squeezed in and found the seat hotter than ever. As she started the engine he felt sweat beginning on the back of his neck. Two-seventy was too much, even for somebody six-four. What happened to the resolution to take off forty pounds?

"Dr. Kane, I'm sure you know far more about the effects of radiation than I do. Even without the autopsy, what's your best guess as to how Frank Lazenby died?"

The little car was underpowered and had a stick shift. Lassandra Kane changed gears with swift, economical movements. She stared straight ahead as she answered. "Radiation overdose. *Huge* radiation overdose, something that killed in minutes rather than days or months. That's a bigger dose than I've ever heard of or believed possible—and the Radiological Health Handbook has been like my Bible for ten years. Frank Lazenby wasn't just irradiated, he was *cooked.* And now I've said that, I'll tell you why I must be wrong. That much radiation should have induced secondary radioactivity in his body, things like potassium isotopes with half-lives of hours and longer. There was no sign of them."

Jeff realized that he was listening more than he was understanding. "This Bible you said you used."

"The Radiological Health Handbook?"

"That's it. Do you know where I could find a copy, to borrow for a while?"

She gave him a quick sideways glance, not quite a smile. "Reach under your seat, and you'll find my copy."

"Oh, I wouldn't want to take yours." But Jeff groped around beneath him and pulled out an oversized book with a pale blue cover. He opened it at random, stared, then flipped through the pages. "Whoever wrote this didn't have much use for words, did they?"

"It's basic radiological data. Tables and graphs of decay modes and half-lives and chemical properties for radionuclides. There's a tremendous amount of information packed into that one book."

"Maybe there is. My problem is *unpacking* it." Jeff kept the book on his knee open at one page. "I guess I won't be borrowing your copy. Can you tell me what this here actually *means?*"

Lassandra pulled the car over to the side of the road and carefully turned off the engine. "Let me look."

She took the book. "Right. Do you know what plutonium is?"

"Something you use to make atomic bombs. It's poisonous as hell."

"It is—chemically poisonous, and bad news if you inhale even a micro-

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

gram. It's also a by-product of working nuclear reactors, so there's lots around the Idaho site. It's element number 94, and its symbol is Pu. What this page is all about is a particular isotope of plutonium, called plutonium-241. It's radioactive. This chart shows its complete decay chain. In an average of thirteen years the plutonium changes to another element, americium, but that's radioactive, too. So in four hundred and fifty-eight years—on average—it changes to neptunium. That's radioactive, but it takes two million years before it becomes protoactinium, which changes to uranium in twenty-seven days, which changes to thorium after a hundred and sixty thousand years, which changes to radium, then to actinium, then to—"

"All right." Jeff held up his hands. "I surrender. I'm not going to borrow your book."

"I'm sorry if it sounds like gibberish, but we have to deal with sequences like this every day. The decay chain, and how long each piece of it takes, is the basis of the whole nuclear waste problem." She gave the book back to Jeff and started the car's engine. "If everything had a half-life of only a few minutes, we wouldn't *need* a remediation program. Everything would tumble right down the nuclear decay ladder, giving off particles or radiation on the way, until it ended up at some stable element. Unfortunately, nature doesn't work that way."

"I don't know that it's all unfortunate. If it did work fast, I wouldn't have a job here."

"True. But do we want to pass on to our kids a problem that will still be around in ten thousand years?" She pulled the car up outside a building in the waste management complex. "I'm sorry, Sergeant. I wasn't trying to blind you with bullshit. It's my field, and I tend to get carried away."

"No apology needed. I'm interested in knowing what goes on in this place, but the briefings I got when I came on board didn't mean a thing to me. Maybe someday you could say it all again, slower."

The inside of the building was as cold as the car had been hot. They went through a deserted foyer and came to a cipher-locked door marked "Authorized Personnel Only."

"Laser research, this section," Lassandra Kane said in answer to Jeff's question. "*Nuclear* laser research, in particular. You know how a laser works?"

"Not a clue. My sister had her eyes done."

"Not with one of these, she didn't. An ordinary laser, like the ones they use in CDs or in surgery, takes a whole lot of atoms whose electrons are above their lowest energy, and makes them give all that spare energy out at once. You get a beam of light as a result. All at the same wavelength."

"I've seen them used in light shows."

"Those are low-power versions." They were through the cipher-locked door and Lassandra Kane was leading the way along a windowless corridor. "A nuclear laser uses the same general principle, but it works on the protons and neutrons inside an atomic nucleus. The energies are orders of magnitude greater, and the radiation far shorter in wavelength."

"Could a nuclear laser have been used to kill Frank Lazenby?"

"Not a chance. Even the most powerful ones, like those over there, are thousands of times too weak."

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

They had entered a lab with optical benches set along three of the four walls. The devices on them seemed to Jeff to be surprisingly small.

"Might Lazenby have been working on a bigger and more powerful version?"

"He might. If so, he never mentioned it."

Or anything else he was doing, until it was perfected.

A test version, a prototype. Lazenby wanted to try it out, secretly, and took it at night onto the test range far from anybody. But something went wrong, it didn't work as planned. . . .

Jeff decided that he was fantasizing. He had to believe Lassandra Kane, all the lasers were far too weak. Also, Wally Bronsteed and Pete Walden had later searched the area around the body, and found nothing.

"You sure you want to see everyone at once?" She interrupted his wandering thoughts. "If you do, you'd better sit out here. You won't all fit in any of the offices."

That sounded like a sly comment on Jeff's size, until she opened a door with a sign on it reading "Dr. Lazenby."

It was of medium size, but every square inch of floor space was covered with instruments and half-assembled equipment. Stacks of preprints overflowed the bookcases and sat all over the desk.

"I was told that Frank's office is off-limits until we have the representatives here from Washington," she said. "I don't know if that would apply to you."

Jeff thought of Tom Markin's devotion to proper procedure. "I think we ought to assume it's off-limits to me, too." He waved his arm at the mess of junk and papers. "Are the other offices anything like this?"

"Worse. So far as this lab is concerned, Frank was the neatness freak."

They had made no attempt to keep their voices down, and other doors were opening.

"This is Sergeant Jeff King," Lassandra Kane said to the three people who emerged. "As I mentioned to Dr. Willoughby on the phone, he is investigating the death of Frank Lazenby."

"'Investigating' is a bit strong." Jeff shook hands with the two men and the woman, reading their names off their badges and committing them to memory: Dr. Stafford Willoughby, Dr. Jennifer Watts, and Dr. Glenn Schaefer; all, he would say, in their early thirties. "A group will be arriving from Washington in the next day or two. I'm just performing some of the groundwork for when they arrive."

He motioned to the only place in the long lab where they could sit, on the tall seats placed on either side of a work bench. They looked suspiciously like bar stools.

"Cooperate with the sergeant in any way you can," Lassandra Kane said. "I'm going to let you get on with it."

She left, but instead of going out of the lab she entered Frank Lazenby's office and closed the door. Jeff sat down cautiously—the other three each looked to be no more than half his weight—and wondered where to begin.

With questions; they were staring at him expectantly, and no one seemed ready to speak.

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

"When did you last see Frank Lazenby?"

Glenn Schaefer was the first to answer. "He was at the lab late last night, and so was I. I didn't notice the time he actually left, because I was still working. But it had to be about nine."

Jeff decided that answer was consistent with Schaefer's appearance. He was a thin, white-faced man with dark-socketed eyes, who looked as though he worked eighteen-hour days and never saw the sun.

"And when did you leave?"

"I'm not sure, but probably around ten. That's when I usually leave. I logged out, and that will show the actual time if you want to be sure."

"I'll check." Jeff turned to the other two.

They glanced at each other before they answered. Jennifer Watts said, "Staff—Dr. Willoughby—and I, we left together about five. Frank must have been in his office, but he had the door closed. We didn't see him."

Stafford Willoughby was nodding agreement. "We left early because we had a dinner appointment. Off-base, over in Idaho Falls."

Jeff looked at the body language between the two, and decided that it might have been more than a dinner appointment. Idaho Falls was forty miles to the east, a long way to drive for dinner. It would be easy enough to check where they were, and with whom, but that was not a top priority.

"Did any of you ever work on the same projects as Dr. Lazenby?"

This time it was Jennifer Watts, plump and red-headed with pale blue eyes, who answered first. "We're all in the same section." She sounded perplexed. "Some projects are so big that we have to work on them as a team. So every one of us has worked projects with Frank—and with each other."

"Were you working together recently? I mean, like within the past week or two."

She shook her head. "Not me."

Glenn Schaefer echoed, "Not me," but Stafford Willoughby, after a few moments of hesitation, said, "Frank and I were. Not an official project, but an idea for a research proposal."

He looked at the others, and especially at Jennifer Watts. "I'm sorry, but I didn't say anything to anyone else because Frank asked me not to. He wanted to keep it a secret until it happened." Willoughby turned to Jeff. "To be honest, I felt flattered. Frank normally liked to develop his ideas alone."

"So I've heard. Did your research proposal involve anything that might have taken Frank Lazenby out onto the test range at night?"

"No. Quite the opposite. We had an idea for a better way of producing biological tracers—radioactive isotopes used in medicine. The work would involve the experimental breeder reactor, and everything would be done indoors at that facility."

"Do you know of any other secret projects that Lazenby might have been involved in?"

It was the sort of query that almost guaranteed a negative answer, and Jeff was not surprised at the shaking heads.

His next question made good sense in the seedier depths of Washington, but here in Idaho it sounded faintly ridiculous. "Do you know of any-

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

one, anyone at all, who might have reason to kill Frank Lazenby, or to wish him dead?"

Again a trio of shaking heads, interrupted by the opening of Frank Lazenby's office door. Lassandra Kane appeared. She was holding in her hands a brown ledger about ten inches by fourteen.

"Excuse me, Sergeant King, but can you spare me a few minutes?"

Jeff stood up from the stool, slowly and carefully. It still felt as though it might collapse under his weight.

"Will you be needing us some more?" Jennifer Watts asked.

It was a first-rate question, but not one that Jeff was sure he could answer. He said, "Maybe. Just go back to your regular work, would you, but if you have to leave this building let me know where you're going."

He followed Lassandra Kane into Lazenby's office. She closed the door, motioned him to sit on the only available chair, and perched herself on the least-cluttered corner of the desk. She tapped the book she was holding.

"Frank Lazenby's daily notebook. I told you that everyone in the labs has to keep them."

"You did. But his were more or less useless, because what he wrote didn't bear much relation to what he was working on."

"You're a good listener."

"Lots of practice."

She held the book out to Jeff. "Take a look at the past three weeks."

He opened it. Frank Lazenby's writing was neat and legible, written remarks interspersed with line drawings of equipment and with graphs and tables of mysterious variables. Jeff leafed forward. Then he had to turn back. The last entry had been made twenty-five days earlier. Beyond that, the sheets were blank.

He lifted his head. Lassandra Kane was regarding him steadily, her brown eyes made huge by the rimless glasses she was wearing.

"What does it mean, Dr. Kane?"

"I'm not sure, but I'll make a guess. I always suspected Frank of fudging his notebooks. I don't mean he wrote things in them that were untrue, but he didn't keep them up every day, the way the research staff are supposed to. He'd become deeply involved in a project and obsessed by it, so he would forget about everything else. Then after a while he'd realize that his notebook was way behind, and fill it out all in one swoop. I could tell he was doing that, because there would be a week's worth of material all written with the same pen and in exactly the same size writing."

"But this time he never had the chance to play catch up."

"More than that. As I said, sometimes he'd do a week all at once. But this is *twenty-five days*. Whatever he was doing, it had him so wrapped up in it that he neglected filling out his notebook for much longer than he ever had before. I think that Frank Lazenby was pursuing a major discovery when he died."

"Are you offering that as a motive?"

"I don't know. What kind of things usually provide motives?"

"For murder? Because that's what we're dealing with in this case." Jeff closed the book and let it sit on his lap. "If it's unpremeditated, then

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

anger. Lust. Money, if the killing occurs during a hold-up. Stupidity, if it happens in a hijacking. But this was premeditated. We don't know how it was done, but it called for advance planning. So then the motives are different. Jealousy. Envy. Greed. Revenge."

"You sound like you're running through the list of the seven deadly sins."

"Why do you think they're called deadly?"

Lassandra retrieved the ledger. "Should I have touched this? What about fingerprints?"

"A bit late to worry about that. In any case, I doubt if the murderer was interested in Lazenby's non-existent notes."

"Which motive, then?"

"If I had to make a guess, greed."

"Greed! Frank Lazenby didn't carry a lot of money, he didn't wear jewelry, he wasn't from a rich family."

"I know. It's still the best of the alternatives. Revenge and jealousy don't make sense, because you assure me he had no close relationships. I can imagine envy, of his scientific reputation, but I can't see anyone killing him for that. After all, it would still be his reputation, and no one else's."

"So we're stuck. You didn't get anything out of talking to his three coworkers."

"Did I say that? I got quite a bit. In fact, if I were in my old working place, I'd bet you ten bucks that I know who killed Frank Lazenby. Not because I'm smart, but because it's the only sensible option."

Finally, Lassandra lost her cool and controlled look. "Who?"

"Dr. Schaefer."

"Glenn Schaefer? That's ridiculous. Do you have *evidence*?"

"Not that I'd like to give to a district attorney. But the pieces don't fit any other way. Lazenby was a loner, with no sexual or other close ties to anyone. That reduces the choice of possible killers almost to zero—in fact, to the people he worked with. Two of them left early yesterday for Idaho Falls, and I bet when we check we'll find out they didn't come back last night. Jennifer Watts and Stafford Willoughby have an affair going, which they don't want people around here to know about. It makes them too aware of each other to notice much about anyone else. But Glenn Schaefer left late—after Frank Lazenby, which he couldn't deny because he has to log out. Also, he said he usually leaves very late, around ten. He would be in a perfect position to keep an eye on what Lazenby was doing over the past weeks or months. It's hard to hide a project, I would imagine, in a small lab."

"Impossible, if it calls for the use of equipment. But—Glenn Schaefer! You said that we would need a motive and a method, as well as a suspect. We have neither. Where do we go from here?"

"I don't know." She had posed the question that Jeff could have expected, and he didn't have an answer. What he had told Lassandra was true. He didn't have a smidgen of real evidence.

"So what are you going to do?" she asked.

"Well . . ." What Jeff was going to suggest next was an act of desperation, the action of a man whose main police experience was plodding leg-

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

work and little else. "I want to take another look at the place where we found Frank Lazenby's body. Maybe I can find evidence."

"Didn't you look this morning, with the people from Remediation?"

"We looked. I'd like to look again, all around the area." The oddity that Lassandra had dismissed, of high radiation levels on the display in her office while they had measured low levels near Frank Lazenby's body, was still nagging at Jeff. "I'd like to take a radiation counter. And could you hook it up with one of the gadgets that Wally Bronsteed had? The thing that tells you exactly where you are. A GP-something."

"GPS, stands for Global Positioning System. Sure, I can provide you with a terminal. We have them connected to radiation meters, so you can measure and record the dose level any place you go, automatically. When do you want to do it?"

Jeff considered. He had been up and active since before dawn, and already felt tired. On the other hand, he knew from experience that he wouldn't be able to relax until he had revisited the scene of Lazenby's death.

"I'd like to go as soon as possible."

"It's hot outside, and getting hotter." She was inspecting his tie, button-down shirt, and tight suit.

"I'll change clothes."

"The equipment you want weighs over ten kilos, maybe close to twenty."

"Are you trying to talk me out of going?"

"No." Her stare was steady and evaluative. "Unless I read you wrong, there's no way I could. But I have a friend in personnel, and I took a peek at your file. I know you left the Washington police for health reasons."

"I'm much better now."

"I'm glad to hear it. But I don't think you ought to go tramping up and down hill in ninety degrees carrying a heavy pack."

"So what's the alternative?"

"I could come with you."

"I appreciate the offer. But this is something I'd rather do alone."

"I understand. You want uninterrupted thinking time, the same as I would. But you should at least take one of the electric runabouts that they use in Remediation. You won't be able to walk along with your nose to the ground, but you can crawl the car as slow as you like and stop wherever you want to. You'll still be hot—the cars have no air conditioning—but you'll feel a lot more comfortable than if you walked."

It took Jeff no more than a second to make up his mind. He had no idea how far he might have to walk, but he knew from experience that once you were physically fatigued your ability to observe and analyze what you saw went way down.

"Thanks. Can you fix the radiation monitor into the runabout while I change clothes?"

"Take me ten minutes, max. I'll get somebody onto it."

She was heading for the door when Jeff said, "Dr. Kane?"

She turned. "Yes?"

"You are being extremely helpful. I just want you to know that my go-

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

ing out there is a real long shot. I don't expect to find anything. Ninety-nine percent of police work is looking, and not finding."

She smiled. "That makes it just like scientific research. I guess the two of us do have something in common, after all."

Jeff had asked the doctor who first saw Frank Lazenby's body a direct question: "How far could a man in that condition walk?"

Obtaining a direct answer was not so easy. Dr. Kellogg had hemmed and hawed. "We are not sure of the cause of death—although the appearance of the body is certainly suggestive. Also, there are few medical records of such cases."

"Doctor, I'm not asking you a question under oath in a court of law. I'm just asking for the best ballpark figure you can pull off the top of your head."

"We-e-e-ll. My guess is that damage to and rapid deterioration of the body's balance centers would induce acute vestibulitis, and that would limit mobility. In other words, he'd fall over and after that be too disoriented even to crawl."

"How far?"

"Mm. Maybe three hundred meters? But it could well be only a hundred meters, or as much as a kilometer or more. . . ."

It was vague, but it was the best that Jeff was going to get. He towed the electric runabout behind one of the lab's jeeps until he was a kilometer south of where Lazenby's body had been discovered. If Kellogg were correct, and Lazenby had in fact staggered north as the body position suggested, then Jeff was still seven hundred meters away from ground zero, the place where something inexplicable and deadly had hit Frank Lazenby.

Jeff unhitched the runabout. The first thing he did was check the reading of the radiation monitor. It showed a value thirty times as high as Wally Bronsteed had reported, early in the morning. Nowhere near dangerous, but enough to make Jeff feel uncomfortable.

Lassandra had told him he might find rapid variations in recorded dose. "Most of the original sources of radioactivity register as point sources, meaning something specific happened, like an unauthorized drop-off of cooling liquids or spent fuel rods. Over the years, weather and wind and run-off diffuse the source over larger areas. But you can still expect hot spots."

Maybe Jeff was close to one of those hot spots now. He headed the runabout north. The instrument that Lassandra Kane had placed in the space behind the driver's seat measured total radiation dose and GPS location every thirty seconds. It showed the value on a remote display fixed on the dashboard. It also made a complete digital record that could be analyzed within the framework of a Geographic Information System like the one that Lassandra Kane had shown Jeff.

Jeff crept north, keeping the runabout to a slow walking speed. He examined the ground ahead, seeking any oddity or any sign of a manmade object. He saw neither, and there was so little vegetation that anything as big as a beer can would not be missed. The display of the radiation dose

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

dropped steadily. After eight hundred meters it read a flat zero. Jeff halted the car to make sure that everything was still hooked up. It was. He kept driving. The measured dose gradually crept higher. When the car reached the place where Lazenby had been found, the value was exactly the same as that noted by Wally Bronsteed. Apparently the onboard device was working.

Jeff halted the car and walked all around the body's location. As he made a slow spiral outward, heat came up at him from the ground in waves and he could feel sweat trickling down his forehead.

There was nothing to be seen, nothing odd or even mildly interesting within forty meters of the marked point where the body had been discovered. Lazenby had died here, but the cause of his death was farther away—maybe as much as a kilometer away. Suppose that he had turned as he fell, and had actually been staggering not from the south, but from some other direction?

Jeff climbed back into the runabout and drove a larger version of the pattern that he had already walked, a slow outward spiral. He saw nothing. He heard nothing but the whir of the car's electric motor and the regular click, every thirty seconds, that indicated a radiation measurement was being made and its position recorded.

The temperature inside the runabout mounted. Jeff doggedly went on, driving and looking, until a different factor became important. He had gone round and round, until he was almost a kilometer from where the body had been found. In doing so he had covered close to twenty kilometers and the electric power was depleted to a point where the car was moving more slowly. He had to get back to the jeep, or be forced to abandon the runabout and go home without it.

The power lasted—just. The final two hundred meters to the jeep were at a stately two miles an hour. As Jeff bent over to connect the tow, he felt dizzy from heat, fatigue, and hunger. All he had eaten since breakfast was junk food grabbed from vending machines. On the other hand, he had drunk three times his daily allowance of coffee. His heart was jumping and skipping like a lamb in the springtime.

Just like the old days. Missing meals, or loading in empty calories.

When he climbed into the jeep for the trip back south, he glanced at the clock. Almost five-fifteen. On a normal day that was quitting time. He should be going home to a plain meal, his one-a-day permitted alcoholic drink, and a quiet evening watching television or a movie.

Jeff started the engine. There must be something seriously wrong with him. In spite of the heat, in spite of the exhaustion, in spite of the tension and the knowledge that he had just wasted two hours driving round and round in order to discover nothing, he had enjoyed today so much more than a "normal day" that the difference couldn't be measured.

As Jeff parked the jeep outside the Waste Management Complex where Lassandra Kane should be waiting for him, he had a disturbing thought. His cell phone had not rung all day, while normally he had at least a dozen calls. That had to be as a result of instructions to others from Tom Markin. The head of security was deliberately isolating Jeff, making sure

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

that he could point to a single point of responsibility—and blame—in the investigation of Frank Lazenby's death.

Jeff unhooked the recording unit and hauled it inside. Lassandra Kane's estimate of its weight had been optimistic. It felt as if he was carrying an eighty-pound bag of concrete mix. There was no way he could have wandered the hills and valleys of the test site with that thing on his back. Not that its absence would have done any harm. It hadn't told him anything.

He banged on the door of Lassandra Kane's office with his elbow, pushed through without waiting, and staggered on to drop the recorder on the nearest available surface, which happened to be a conference table.

She was on the telephone, listening but not talking. She raised her eyebrows at him.

He shook his head. "Nothing useful. Not a thing."

She shrugged, pointed at a plate of cookies and a coffee pot, and waved him to a chair.

More caffeine and more sugar. Well, why not? He was going to be fully alert until the very moment he dropped dead.

Lassandra finally hung up the phone and came to stand next to Jeff. "Things are moving faster than I thought. That was word coming down that the Washington troop and the FBI roll in first thing in the morning, so we have to be ready for them. What happened with you?"

"I roamed the range. I covered a lot of empty real estate. I sweated a lot. That's about it."

"Did you receive information from anyone else in security? Maybe somebody else is making progress or having ideas."

"If they are, nobody is telling me. I think I'm being kept in a box deliberately." Jeff mentioned his suspicions of Tom Markin's actions and motive. "Or am I being paranoid?"

"I don't think so. I've heard bad things about Markin. He was here twenty-five years ago and in those days he was an open racist. Now he's just gone underground with his opinions." Lassandra went to the end of the conference table and stared down at the recorder that Jeff had dropped there. "This worked all right, did it?"

"So far as I could tell. There was a point early on when the radiation reading dropped to zero. It came back up later. But to be honest with you, I wasn't taking too much notice of the values. I was too busy looking for visual evidence. Which I didn't find."

"A *zero* radiation reading?" She had homed in on the one word.

"That's what it said. I guess that's the opposite of a hot spot."

"I think I'd better take a look." Lassandra lifted the recorder—easily; Jeff decided that she was much stronger than she looked—and carried it across to the computer on her desk.

She went on, "One of the ridiculous things about environmental nuts is that they try to require nuclear waste clean-up to the point of zero radioactivity." She was making connections between the recorder and the computer. "But there's natural radioactivity *everywhere*. Zero radioactivity isn't natural; it's positively *unnatural*."

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

She touched a key, and a "Hot Synch" message appeared on the computer screen. "There. We're doing a file transfer, and then I'll use your GPS readings to put all today's radiation measurements into a geographic format. Takes a minute or two."

She turned away from the computer. "By the way, are you still backing Glenn Schaefer as the person who killed Frank Lazenby?"

"I've seen nothing to make me change my mind."

"Maybe this will. After you left, he came to see me in my office. He told me that Frank's death had disturbed him profoundly, and confirmed the feeling he has had for a long time that he ought to be in a different kind of work. He is considering resigning from the lab, and going off to teach high- school physics. What do you make of that?"

"When murder is involved, you can run but you can't hide. But if you mean, is it evidence, then it isn't. It would make more sense as a motive if Schaefer *stayed,* because then you could argue that he was after Lazenby's job."

"They were equals, employed to do the same kind of work. Frank Lazenby was a lot more talented than Glenn Schaefer, but neither one worked for the other."

"So cross that idea off the list. As I said, even if Schaefer worked for Lazenby his decision to leave argues the wrong way so far as motive is concerned."

On the computer screen, isolated points of color were popping into view. Associated with each, just below it and to its right, was a number. Lassandra, watching the display, suddenly grunted and moved closer.

"You're quite right. There's a point with an actual zero recording for radiation dose. And there's another."

Jeff stood up to join her. He could discern on the screen the track of his own progress on the ground, a wobbly outward spiral of dose readings. He hadn't realized there had been so many; two and a half hours of driving produced close to three hundred data points.

At his side, Lassandra breathed, "Well, isn't that the damnedest." He stared at the values, and saw nothing significant.

"What?"

"Just a minute, and you'll see." Lassandra was over at the computer. "I've got a routine here, takes a two-dimensional array of values, performs interpolations, and plots isograms—in this case, the program plots curves where the measured radiation dose is a particular value. Take a look at this."

The scattered points of the readings Jeff had made during his excursion on the electric runabout were still there, but overlaid on them he now saw a number of closed curves. They nowhere intersected, and they formed an almost perfect set of concentric circles.

"Here's where Frank Lazenby's body was found." Lassandra used the mouse and a cursor moved to midway between the center and the top of the screen. "If he walked north, as you think, and as far as Dr. Kellogg thinks, then whatever happened to him would have happened just about *here.*"

The cursor moved, until it was close to the center of the set of concentric circles.

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

"Now look at the measured radiation values. Zero at the center, zero everywhere until about here—the scale bar says that represents about two hundred meters on the ground. And then the numbers gradually increase. By the time we're a kilometer out—as far as you went—the values are typical of what I would expect in that region of the test site. And Frank Lazenby died of a massive radiation overdose, but his body showed no residual secondary radiation."

Jeff could follow the pattern on the screen. That was clear enough. But nothing else was clear. He said, "I see the lines. But what do they mean?"

"I think they mean—I think they mean I have to think."

Lassandra sat down, placed her elbows on the conference table, and covered her eyes with her hands.

Jeff knew when to keep quiet. He waited, until at last she sighed, laid her hands on the table, and said, "I think I understand what killed Frank Lazenby. But I don't know why."

"You're ahead of me, Dr. Kane. Let's start with how."

"He was killed with his own invention. Remember how I told you that the problem with radioactive waste materials would be solved, if you could make every decay in the chain happen in seconds or minutes instead of some of them taking thousands of years? Frank solved the problem. The trick is to *stimulate* the decays to take place, using a nuclear laser. You force the nucleus to descend to a lower energy level, in just the same way as an ordinary laser makes electrons drop all at once to lower energies. The process has been understood since 1917, when Einstein published the basic paper on stimulated emission. Of course, the machine you need will be very complicated and have many different operating energies, because there are many different steps in the nuclear decay ladder."

Jeff thought that he understood. He said, very slowly, "So he had a way of solving the nuclear waste problem. But he didn't want to talk about it until he had proved it worked. I can understand that. I still don't see why he died. Wouldn't what he built *get rid* of radioactivity, not make it worse?"

"What it would do—what it did—is make the stored particles and radiation that would normally be released naturally over a period of thousands of years come out *all at once,* in one huge flood. Anyone close by would be hit with enough radiative energy and particles to be killed almost instantly. But after that happened, if the machine was still operating it would then get rid of all the *induced* radioactivity in the body. As it did in Frank Lazenby's case. And of course, there would be no radioactivity at all in the ground nearby—as you found."

"Dr. Kane, Lazenby must have known that what he had could be dangerous. He wouldn't have tested his machine when he was standing next right to it."

"He didn't intend to. My guess is that he set the machine to operate with a timer. He planned to go out onto the test range at night, when no one was around, with the timer set so that he could observe what happened from a safe distance. Afterward, when he knew it was safe, he would come back and collect his machine and make his measurements.

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

He thought he was doing all his work in secret; but somebody else had been following his progress."

"Glenn Schaefer."

"Maybe. Whoever it was tampered with the timer in the lab, so that the machine operated when Frank was standing right by it. The other person probably followed Frank out to the testing place in an electric runabout—they are very silent. He watched to make sure that Frank would die, then loaded the runabout onto the van that Frank had been driving and came back with that and Frank's invention."

"What would he do with it?"

Lassandra shrugged. "Hide it. Study it. Then, once he was sure he knew how to build another, he would dismantle it. He would want to leave no evidence of what Frank Lazenby had been doing. But *why* would he have killed? Glenn Schaefer didn't have any reason to hate Frank Lazenby."

"He didn't hate him." Jeff was back on his own ground. "But he had a hell of a good reason to want him dead. Suppose you have a machine that can be driven across an area and get rid of excess radioactivity as it goes. How much would it be worth?"

"Priceless. The cost of nuclear remediation.for all the sites in this country alone is estimated to be in the trillions of dollars."

"Of which Frank Lazenby would have received nothing. He would have given the secret away, gladly. In any case, you told me that the patent rights for work done here all belong to the government. But if somebody *didn't* work for the government—say, somebody was teaching high school—then after a period of time he would be free to patent the invention in his own name. He'd become a billionaire. We knew from the beginning that Glenn Schaefer had the *opportunity* to be the killer. Then you told me the *means,* the way that he was able to kill. Now we have the *motive*—and a damned good one."

Jeff had spent most of the day feeling like a half-wit. It was a treat to see Lassandra Kane's jaw hang and her eyes open wide. She said, "My Lord. So it *was* greed, the way you said. But are you sure?"

Jeff nodded, for a reason that went beyond rational argument. Since midday he had been running on adrenaline. Now he could sense the level dropping inside him, as it always did when the gut feel was right and a case was wrapped up as far as he could take it. He realized that he was tired, sleepy, and starving.

Lassandra was staring at him. "What do we do next?"

"Write up everything we know or think. I give it to Tom Markin. We'll have the people here from Washington tomorrow, and it will be out of our hands. Finding proof of what we say, or breaking Schaefer, will be up to them."

She was nodding, but also frowning as though she did not agree. She said abruptly, "Are you hungry?"

"I could eat a horse."

"I don't think it's on the menu, but you could ask. I want to take you off base to the Toledo Steak House, and buy you dinner and a drink." And, when Jeff simply stared, "I want to try to talk you into something."

She was already moving toward the door, taking his acceptance of the

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

dinner invitation for granted. Jeff followed her, feeling slow, lumbering, and physically and mentally depleted. They were outside, and Jeff was blinking at the big red sun, low in the sky, before he asked, "Talk me into what?"

They climbed into her little blue car—at least the seat was cool now—and she drove toward the test site's southern exit. "Talk you into doing things a little differently. I know proper procedure. You're supposed to write up your daily report. It will go to Tom Markin. What do you suppose will happen then?"

"It will be his report. He'll shunt me to one side, and he'll deal with the Washington people himself."

"That's consistent with everything I've heard about the man. Suppose the report that you hand in for today says you got nowhere. What then?"

"I'm not sure. There's a good chance he'll trot me out in front of the Washington group, so he can point me out as the man in charge of the investigation who didn't do a damn thing."

"More than a good chance—a flaming certainty. But suppose that when he does that, I'm there, too. I'll be asked to attend, because Frank Lazenby worked for me. And suppose that when Markin points you out as the ex-cop who couldn't do a thing right, you pipe up. You say that you and I just had a meeting, and we put things together. That wouldn't be a lie, because we *did* put things together. Without what we both did, we wouldn't have a means for committing murder. Without what we both did, we wouldn't have a motive. And then you tell them the whole story, with me there to back you up. What do you think?"

"I think Tom Markin will shit in his boots. He won't say anything at the time, but he'll do everything he can to have me fired."

"More than he's been doing already? But it will be harder for him, because you will have cracked the most important security problem the lab ever had. *And* you'll have someone—me—with friends in high places, to protect you if Markin tries something. Well?"

"I'm not too good at lying, Dr. Kane."

"Lassandra, please—we're off base and we're off duty. It's not really lying, just a brief delay in reporting. We'll rehearse you tonight, over a twenty-ounce steak and a pitcher or two of beer. What do you say?" When there was no immediate reply, she dug him in the ribs with a sharp elbow. "Come on, Jeff. I know you hate that son of a bitch. Live dangerously for a change. Say you'll do it."

Jeff thought, *A twenty-ounce steak and two pitchers of beer? That sounds wonderful, but it's more than my weekly ration of red meat and alcohol. How much more dangerously do you want me to live?* But he could feel a glow of possible future satisfaction. To see the look on Tom Markin's face. . . .

He leaned back in his seat. In spite of a day when he had done everything he had been told not to do, his heart felt fine. No speeding up, no missing beats.

He knew she was looking at him and waiting. At last he said, "Lassandra, I like my job here. I'd hate to be fired and have to go back east. So I won't say yes. But get a little food and drink inside me, and I just might be ready to be persuaded." ○

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

Photo courtesy C. N. Brown/*Locus*

Charles Sheffield (1935-2002)

Charles Sheffield, a physicist born in England, was the author of nearly thirty novels and over a hundred stories. His first tale for *Asimov's,* "The Seventeen-Year Locusts," was published in January 1983 in the same issue where my name first appeared on the masthead. It was followed by one of my all-time favorite stories, "Tunicate, Tunicate, Wilt Thou Be Mine?" (June 1985), and sixteen other tales. His Hugo and Nebula awards, however, came for "Georgia on My Mind" (1993)—a story that was first published in *Analog,* our sister magazine.

In 1998, Charles married SF author Nancy Kress. He was charming and witty. He once told me that he sent his nice stories to *Analog* and his nasty stories to *Asimov's.* We would have been delighted to have had first pick on all of them. He will be missed by all of us.

—Sheila Williams

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

ON BOOKS

Norman Spinrad

ECONOMIC DETERMINISM

A MOUTHFUL OF TONGUES
by Paul Di Filippo
Cosmos Books, $29.95
ISBN: 1587155060

SHADOW PUPPETS
by Orson Scott Card
Tor, $25.95
ISBN: 0765300176

MAELSTROM
by Peter Watts
Tor, $25.95
ISBN: 0312878060

PERMANENCE
by Karl Schroeder
Tor, $27.95
ISBN: 076530371X

WHOLE WIDE WORLD
by Paul McAuley
Tor, $25.95
ISBN: 0765303922

As I've said often enough in print, "Even if you live in an ivory tower, you've gotta pay the rent." And decades before, Ernest Hemingway declared: "When I'm writing I'm an artiste, when I finish I become a son of a bitch."

Meaning, chez moi, that unless writers are independently wealthy or blessed with compliant publishers who will automatically shell out big bucks for anything they choose to write, economic considerations have always been there, and they cannot help but exert some kind of influence, large or small, on what gets written, or at least what gets published.

Meaning, chez Papa, that a serious writer should first concentrate on the literary product itself in psychic isolation from said economic considerations and then do what it takes as a business person to secure for it the said bucks required to pay the said rent.

But while I would contend that I have described the eternal and inherently immutable existential position of the creative writer, I would also contend that, at least within the compass of the "SF genre," Hemingway's maxim has long since become obsolete. These dim days, survival would seem to dictate taking care of business first. And how the business is taken care of now exerts an overweening influence on the work itself.

Now I am not being so crass as to contend that everyone writing SF today is a cynical hack (although cynical hacks are not in short supply) or that we are all engaged in a Darwinian struggle to "compete for Joe's beer money" as has been inelegantly contended in the past.

In the first place, I have here before me five SF novels, all by excellent novelists; one of which, Peter Watts' *Maelstrom,* is a sequel of considerable merit to a fine first novel; one of which, *Whole Wide World* by Paul McAuley, is an admirable essay at an entirely new literary direction by a well-established writer; one of which, Karl Schroeder's *Permanence,* is a

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

flawed work of real merit having nothing to do with cashing in on the novel that made his reputation; one of which, Orson Scott Card's *Shadow Puppets,* is a prequel-cum-sequel-cum-interquel in the series that has made his current commercial success; and one of which, Paul Di Filippo's *A Mouthful of Tongues,* is a shining example of the literary freedom to be gained by bravely and madly saying "fuck you" to commercial considerations from the git-go.

And in the second place, SF writers have never been serious competitors for any serious drinker's beer money, as a rough calculation of how many six-packs Joe would be constrained to forgo to purchase a single hardcover book will readily enough demonstrate.

But "SF publishing" is what it has become, the pressure is there and there are only a limited number of ways for a writer with literary ambition and idealistic intent to deal with it.

Karl Schroeder's *Ventus,* an excellent, perhaps even great, space opera for sophisticated adults, made him a reputation as a comer, and while it came to a perfect thematic and dramatic closure, there was conceivably weasel-room for a sequel. Indeed, there is always weasel-room for a sequel, as Sir Arthur Conan Doyle discovered to his dismay and further enrichment when he unsuccessfully tried to kill off Sherlock Holmes.

Not being privy to conversations between Schroeder and his publisher after the success of *Ventus,* I have no way of knowing whether there was any attempt to persuade him to follow such a "pragmatic" career course, but if there was, Schroeder did not succumb.

Instead, with *Permanence,* he did what such writers of talent and idealism in similar positions did in previous decades, indeed what in days of yore wise editors actually encouraged them to do. As a follow-up to his break-through success, he wrote a completely free-standing novel that followed his literary predilections and played to his strengths.

Permanence is another reasonably far future space epic set in quite a different universe than that of *Ventus* and constructed around an intriguing and, as far as I know, novel astronomical premise.

Schroeder herein posits that brown dwarfs—failed stars bigger than planets and radiating no visible light but glowing dimly in the infrared and therefore radiating wan heat due to their gravitational contraction—are the most common objects in the galaxy, filling the space between the so-called "lit stars," and many of them are orbited by planets, the so-called "halo worlds."

The halo worlds might be cold by terrestrial standards and naturally dark, but they are abundant, and more importantly, their brown dwarf primaries, being more abundant than lit stars, are much closer together. And so, via a bit of gene-tinkering and a lot of artificial means, the smaller distances between them allowed an interstellar civilization to evolve via slower-than-light starships.

Afterward, however, a method of faster-than-light travel was discovered, but one that, for obscure physical reasons never really explained (and for plot reasons that will be central), can only operate between lit stars.

Thus, as the story opens, the human civilization of the "lit worlds"

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

(the First Worlds, if you will) are the top dogs and the bypassed civilization of the "halo worlds" (the Third Worlds, if you will) has become secondary, though there is contact between them. The ruins of various ancient alien civilizations have also been discovered.

Michael Bequith is a kind of cybermystical anthropologist studying such ruins, the main object of the quest being to unravel the mystery of why these civilizations all became extinct and hence what humankind must do to escape their long-term fate.

Rue Cassel is a halo worlder who for complex reasons comes into (questioned) legal possession of a derelict slower-than-light starship that proves to have been created by one of the long-gone alien civilizations but is still inexplicably up and running—and then some.

This is only the bare-bones setup of an exceedingly complex and well-crafted hard science fiction novel, the very model of what a hard science fiction novel should be—based on an intriguing and unique scientific premise, deriving two human and several vivid alien civilizations from it, its plot engine simultaneously a mystery, a political conflict, and a deep philosophical question, inhabited by well-rendered characters, the personal, philosophical and scientific elements coming together and resolved in an exciting action climax.

However. . . .

However, the said climax turns on a huge literary flaw.

The entire conflict revolves around the fact that the halo worlds are confined to slower-than-light travel because FTL drives cannot work except in proximity to lit suns. And then, in a twinkling. . . .

Without giving too much away, it is the equivalent of the utterly trapped hero magically constructing a blaster or a stardrive or whatever the plot demands out of chewing gum, toothpicks, and baling wire. Without the least bit of foreshadowing anywhere in the body of the novel.

What happened here?

There's only one word for it: sloppiness.

Surely a writer of Schroeder's demonstrated talent and sophistication should have seen this flaw and seen how a quick rewrite could have easily enough fixed it, and if not, surely the editor could have pointed it out and suggested the points at which the necessary foreshadowing should have been inserted.

But it didn't happen.

Why?

Well, I happened on Schroeder's web site, mainly designed, as most of these SF writers' sites are, to develop what the SF publishers now refer to as a "fan base" (the full horror of which commercial strategy and to what creative depths it can lead will be all too well demonstrated herein later.) There Schroeder referred to a current publishing maxim that alas has become common, to wit that to properly develop and tend one's plantation of "fan base" (and all the more so if your œuvre does not consist of a series set in a consistent universe) the SF writer should publish a new novel every nine months.

Well, perhaps there are superhuman writers who can produce works on the level of *Ventus* and *Permanence* at such a killing pace, but I am certainly not one of them, and on the evidence of the denouement of *Permanence*, neither is

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

Karl Schroeder. And for publishers to promulgate such a writing speed to the generality of the SF writing community as a commercial necessity is both cruel and creatively counterproductive.

Oh yeah? many of my colleagues are no doubt now saying. But what if it's true? Take a look at current advance levels, wise guy. Take a look at sales figures for stand-alone SF novels. And where's *your* fan base, huh? How do *you* make a living without cranking out an SF novel every nine months?

The answers are I don't have one, and I can't, and I don't.

My last science fiction novel, *Greenhouse Summer,* earned me about enough money to finance the year's work it took to write it, but more than half of that came in over several years via foreign editions, and, as has been my pattern over three decades and more, I would have been entirely incapable of immediately starting another one.

In the past, as after *Greenhouse Summer,* I spent a year or so writing other things, such as essays, these columns, songs, and scripts. But this time around, when I had recharged my batteries to the point that I was ready to write another novel, I was faced with the unfortunate fact that I wouldn't be able to make a deal to finance the writing of one at even my maximum natural pace, and worse, knowing this up front could not help but effect both my conscious creative choices and the subconscious depths from which creativity must flow.

Economic determinism?

You bet!

Nor am I immune from it.

Fortunately—or wisely, if you will allow—I have never considered myself a "science fiction writer"; that is, a writer whose sole literary ambition was to write only the sort of thing published in "science fiction lines" or by "science fiction publishers." True, the majority of my novels have been literarily classifiable as "science fiction" and have been published as such, but I have always written novels outside the genre.

And that is what I am doing now. Within economic parameters that are viable. Will I never again write a "science fiction novel"? Quién sabe? As the very title of the film that marked his return as James Bond mocked Sean Connery: *Never Say Never Again.*

Terrific for you, my colleagues are now saying, but what about those of us who have neither the desire nor the ability to write anything *but* science fiction?

Well, it might help to be British or Scottish or Australian; that is, if you can connect up with an American publisher as well as one in your home market in the separate British rights area. Then you would be able to count on having two primary publishers financing the writing of your novels, which might just be enough to keep ahead of the landlord writing nothing but stand-alone SF novels at your natural pace. Perhaps that's why such a disproportionate amount of the best SF of the last few years has been coming out of England, Northern Ireland, Scotland, and Australia.

Or perhaps it's a cultural difference. Non-American Anglophone SF writers, with some exceptions, have long developed with lower economic expectations, meaning that they have been forced to follow Hemingway's sequential dictum, following their creative stars

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

and damn the torpedoes of economic determinism. Surviving however they could. When Michael Moorcock took over the British SF magazine *New Worlds,* for example, he consciously changed the editorial policy in a manner he *knew* would diminish the circulation in order to promote his literary interests, cranking out potboilers at warp speed to support the venture. Even today its spiritual successor, *Interzone,* soldiers along doing likewise on a shoestring.

I am not privy to Paul McAuley's Dunn & Bradstreet, nor do I know whether he is heir to a family fortune or has a day job. However, on the external evidence, he has not been cranking out a novel every nine months or anything like it, but over the years has produced a considerable body of excellent wide-ranging work: hard science fiction like *Four Billion Stars,* baroque alternate history like *Pasquale's Angel,* undefinable dark science fiction like *Fairyland,* and yes—a fine far-future trilogy, *The Books of Confluence.*

And what is more, much more, he has changed styles and angles of attack to suit each story; expanding his range, exploring the multiplex literary possibilities contained within the SF rubric, writing with passion, and, on the evidence, seemingly having fun doing it. Pursuing and achieving the sort of career the generality of idealistic SF writers used to aspire to as a matter of course.

Now, with *Whole Wide World,* McAuley has explored a new and unexpected vector once more. This is a novel set mostly in a near-future Britain dominated by surveillance technology and become a Nanny-fascist dystopia, and partly in a touchingly and sympathetically rendered Cuba in which Castro has not been discredited, in which the socialist system he created, rather than falling or hardening further into a brutal dictatorship, has mellowed and matured into something rather sweetly admirable.

The novel is narrated in first person by a haunted, failed, physically and psychically wounded, cynical yet idealistic cop straight out of Raymond Chandler, pursuing the perpetrator of a hideous murder through a demi-monde of cybersurveillance, petty and not so petty crime, sexual perversion, and dirty politics, hampered by bent and not-so-bent superiors all the way.

And McAuley, writing a species of novel he has never tackled before, perhaps something that no one has tackled before—an entirely successful mixture of cyberpunk, police procedural, hard-boiled dick, and political novel, with some hard science thrown in—has adopted yet another style he had not previously demonstrated.

One thing more—subtle perhaps, but indeed much more, there is an angry political passion propelling it all. One may have to be rather familiar with present day Britain—with its "child-friendly" censorship, its omnipresent surveillance cameras—to get it all, but this "near future" Britain is all too nastily close to the present, and McAuley does not hide his cautionary and critical intent, indeed a certain sense of despair for the vector his country is currently following.

Ironically, for I doubt McAuley had a careerist thought in his head when he sat down to write *Whole Wide World,* properly published and promoted (which it doesn't

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

seem to have been in the US edition and how it is published in Britain I don't know), this could have been a commercial breakout book, transcending as it does not merely genre boundaries but the very concept of genre itself.

As McAuley has produced an œuvre that might serve as a career exemplar for "SF" writers, so might *Whole Wide World* serve as a model for the "breakout novel," if only publishers were prepared to do what it takes to reach the sort of wider readership that would enjoy such work if it were brought to their attention.

Alas, this is not the way the publishing industry is set up these days. Quite the reverse. Once you have published a few (or perhaps even one) novel in a science fiction line, you are typed as an "SF writer," and the commercial pressure—and, to be fair, on the publisher by the distribution and retail patterns as well—is to shoehorn whatever you write into the "category" rather than "breaking out" anything different.

The only way to do this seems to be to get published by a publisher that does not have an "SF" line if you can, which is what I am doing with the forthcoming *The Druid King*—which, ironically enough, by its content could have easily enough been published within the genre.

This is not to say that there are not certain creative advantages to genre publication. There are plenty of literarily worthy novels that would sink like a stone if they were published outside the SF genre; novels like Peter Watts' *Starfish* and *Maelstrom,* which, because the general audience is simply not intellectually equipped or educated to truly comprehend, let alone enjoy, the thematic, technological, and extrapolative material, can only be appreciated by the limited "SF" readership.

Accepting the commercially unfortunate fact that one is writing for this limited audience alone does free the committed science fiction writer from the constraint to dumb things down and explain the obvious endlessly for a general audience, and, more importantly, to deal uncompromisingly with thematic material that such an audience would find as arcanely incomprehensible as, well, quantum mechanics or special relativity.

Accepting the ancillary dictum that in order to survive as a writer in this mode one must "develop a fan base" by cranking out more than a book a year or writing a series of sequels even in the early stages of a career or both, however, is another matter. Yes, it makes a grim bottom-fishing commercial survival sense, but the creative price you pay is heavy.

Peter Watts' debut novel, *Starfish,* was tightly focused storywise and settingwise on doings in a future deep undersea lab and power station in a world getting much of its power from ocean floor vents, though doings in the world on the surface certainly did figure in, and when the story moved out there, the necessary background, political and technological, was well-limned and interesting. The novel ended with quite literally a big splash, with an undersea explosion that sent a catastrophic tsunami ashore on the west coast of North America, and the transformation of Lenie Clarke, a major female protagonist, into a kind of technologically transcendent cyborg capable of surviv-

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

ing in both the abyssal depths and on land.

Now he has followed it up with (groan) a sequel, *Maelstrom; groan* because the commercial strategy of tying the two books together has necessitated weighing down virtually the first third of what could have just as well been a free-standing novel with a detailed recapitulation of the events of *Starfish* and their relation to the surface world that almost had me giving up on the book.

Fortunately I didn't, for when *Maelstrom* finally does take off on its own, it becomes something quite different from *Starfish,* and quite fascinating as well.

Yes, Lenie Clarke does wade ashore to become a kind of mythic Shiva-like figure and one of the central characters, wreaking havoc and transformation in a very well and passionately rendered surface world of displaced refugees and an artificial alternate biosphere running out of control.

But this novel is centered on the Maelstrom of the title, a unique version of cyberspace rendered beautifully with literary skill and a technological sophistication admirably verging on mystical speculation. Here, after a century or so, what was the web has indeed become a chaotic maelstrom in both the positive and negative sense.

Bits and pieces of old files and programs have become detached and float freely, more or less, in a kind of electronic primal soup, analogous to the chemical primal soup in the sea from which organic life forms evolved. And an electronic ecology does evolve in the Maelstrom as these snippets of code combine, detach, recombine, complexify, become self-replicating, until finally one of them becomes self-aware in an alien software sense.

Is it "alive"? Is it "sentient"? Is it "conscious"?

Whatever such organic-chauvinist distinctions may mean in this context, it becomes a menace to the organic biosphere, and while there is much more to this novel—political levels, personal levels, psychological levels—the core of the book is the evolution of the "life-forms" of the Maelstrom and the struggle to deconstruct the crown of this electronic biosphere before it deconstructs our world.

In the end, which is to say in the second half of the book or so, *Maelstrom* becomes an excellent and on balance quite literarily successful science fiction novel, so it is fair to say that, if *Maelstrom* is commercially successful within the sales expectations for this sort of thing, Watts has made a successful compromise between the careerist fan base-building of the sequel strategy and the literary requirements of the material, though this novel would have been a good deal better if it had been conceived to stand on its own.

For a truly unfortunate example of how far astray such an attempt to square this circle can go, we must turn to Orson Scott Card's *Shadow Puppets.*

Card is a writer of considerable range and depth, whose career has had its ups and downs, literary and commercial, the one not necessarily coinciding with the other. He burst on the scene as a nova with the novella version of *Ender's Game* in 1977, and then proceeded to produce a wide range of short stories and novels of considerable literary worth. This however, did not garner him great commercial success,

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

and in the beginning of the 1980s, he was considered something of a has-been in these unjust bottom-line terms.

But then he rescued his bankability with a novel expansion of *Ender's Game* and its sequel *Speaker for the Dead,* both of which won the Hugo and the Nebula, and which together built a formidable "fan base."

While he continued to produce worthy free-standing fiction and wrote an excellent alternate America fantasy series, *The Tales of Alvin Maker,* the Ender series (*Ender's Game, Speaker for the Dead, Xenocide, Children of the Mind, Ender's Shadow,* and *Shadow of the Hegemon*) was the lucrative franchise that rebuilt his commercial career into that of a writer whose novels were capable of grazing the bottom end of general best-seller lists.

One can therefore understand why he wouldn't want to give it up, even when the vein ran so thin that the latter installments did not even feature the hero who generated the series, Ender Wiggin, and became something like prequels or "interquels" filling in the interstices in the previously established timeline with tales centered on previously secondary characters.

Now we have *Shadow Puppets,* which given the titles of the previous two novels in the sequence, *Ender's Shadow* and *Shadow of the Hegemon,* may be part of a clever segue from the Ender series into a "Shadow" spin-off series.

I usually review books from bound galleys. While these volumes designed for both reviewers and marketers customarily give all sorts of interesting commercial information on their back covers, as far as I can remember, I have never referred to this material in a review. But here it is too relevant to what happened to the literary level of *Shadow Puppets* to ignore.

Tor, the publisher, announces "$300,000 National Marketing Campaign Plans" in considerable detail.

Say what?

An old rule of book advertising and promotion thumb is that if you are getting serious, you budget $1 of ad and promo money for each copy of a hardcover you intend to print at the launch. Following this practice would mean that Tor intends to print 300,000 copies of *Shadow Puppets* in hardcover and sell, say, 250,000 if things go well.

As we will see when we get to what is between the covers, which is a straightforward science fiction novel with no conceivable appeal outside the genre readership, this seems like commercial lunacy. But wait. The really fine print offers a leather-bound edition at a whopping two hundred dollars a pop!

Now I, among many others, have had such a leather-bound edition from another publisher doing a long series of such reprints, *Bug Jack Barron,* with a price of thirty-five dollars several years ago. Meaning that they were making a profit at that price. Meaning that the unit production cost was, say, fifteen dollars max. Meaning that even accounting for inflation, Tor's production cost on the leather-bound *Shadow Puppets* might be twenty dollars, meaning they would be making a profit with a fifty dollar cover price.

Meaning that the other $150 is gravy and lots of it. Meaning that if they can move 2000 copies of this thing they cover their entire

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

$300,000 ad budget with the leather-bound edition alone, and what they sell of the regular hardcover and the subsequent paperback is just about in the black from the first sale!

Why am I burdening you with these calculations?

To demonstrate the mighty commercial power of a truly well-built fan base. Who but the most loyal fans of the Ender series are going to shell out two hundred dollars for a fancy collectible edition of *Shadow Puppets*? And how many such fanatics do you need to break even, even with a three hundred thousand dollar ad budget factored in?

A mere two thousand!

That's the good news for Orson Scott Card and Tor Books. Commercially they can't lose. They can't lose because Card has done an absolutely exemplary job of building his fan base, and indeed this is more or less forthrightly detailed in the acknowledgment at the back of the book. There have been many novels in this series to steadily build it. There is Card's own web site, Hatrack River. There is even a secondary fan web site, the Philotic web, which offers a time line. Card even acknowledges that he "relied on (these) two online communities" in writing *Shadow Puppets* in order to avoid contradictions with events or descriptions or time sequences in previous novels in the long series.

It seems to me that when a writer has to rely on his fan base to help him in the actual writing of his own novel, condition terminal has been reached as the tail starts wagging the dog. And, alas, in the work itself, it shows.

Shadow Puppets is an exceedingly difficult novel for me to summarize both for devotees of the series and for those who have read none of it. On the one hand, I have only read the first two books in the series and therefore the former know much more of the backstory than I do, and on the other hand, it is hard for me to imagine what someone who came to *Shadow Puppets* quite cold could possibly make of it.

Ender, the young hero who saved the Earth from an alien invasion of some sort, has departed for outer space and far off-stage, and appears only as a vague legend. His brother Peter is the "Hegemon," albeit a hegemon without a hegemony over much of anything, let alone the complex and fragmented geopolitics of the world Ender left behind. Think a toothless UN Secretary General or, better yet, Colin Powell in the Bush Administration in command of not much more than a bureaucracy and a network of spies and agents. Peter Wiggin is still basically a young post-adolescent and still living with his and Ender's parents. The main protagonist here is Bean, another precocious kid, formerly Ender's main lieutenant, and in a love relationship with Peter's and Ender's sister Petra. One Alai, of similar age, has become the Caliph of a newly united Islam. The main villain behind all the geopolitical machinations is one Achilles, described at a great distance as a psychopathic political genius who is a hideous mélange of Machiavelli, Iago, and Charles Manson.

All of the above, save Petra, and several other instrumental others, are graduates of a Battle School, some kind of kiddie corps led by Ender that somehow saved Earth from the aliens.

The geopolitics around which the story revolves are indeed interest-

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

ing, well thought out, and intriguing. China has conquered and occupied India and much of Southeast Asia, and the Muslim world and Israel have made their warm peace. United Islam under Caliph Alai, with the connivance of Hegemon Peter and Bean, launches a war of liberation conducted by a mélange of intrigue, PR tactics, "people's war," and not exactly straightforward military action.

Okay, those familiar with the series to whom I have confessed that I *have* read the first two installments know that I am dissembling, that I know more than I am herein revealing of the back story and character relationships in the foregoing summary. But the point is that any reader coming to *Shadow Puppets* cold will not, and throughout the course of the whole novel, Card doesn't give such a reader much more to grab hold of than I have.

How could he? To do so would have meant summarizing the historical complexities and equally complex character relationships of six previous novels in order to allow *Shadow Puppets* to resonate literarily for the uninitiated reader.

That he hasn't even really tried is perhaps wise, or at the very least cunning. Literarily speaking the task would have been impossible, resulting in a book that would have had to have been more expository lump and flashback than real-time story, arousing the ire of the cognoscenti while still leaving the uninitiated reader emotionally disconnected, and rendering both bored into somnolence.

Clearly Card opted to write a novel truly comprehensible to, and enjoyable only by, his fan base. Given the determinism of the economics detailed earlier, this was the correct commercial decision.

And given the decision to write a novel strictly for his fan base, this *could* have been the best literary decision, too, under the constraints of the circumstances. In outline terms, there is certainly more than enough political and military action and character relationship and interaction between the two in *Shadow Puppets* to successfully sustain a gripping novel for those coming to it with the previous six books resonating in memory.

But alas, *Shadow Puppets* remains a novel written in outline terms, with most of what would have been the action sequences described in summary at a distance, along with a lot of the personal political interactions. The actual real-time upfront story seems to be taking place within a series of class reunions in restricted closed environments.

Worse still, or perhaps in another way exemplary of the foregoing, is the treatment of the arch-villain Achilles. He is behind the lion's share of the politics. He is not just a brilliant psychopath but a brilliantly charming psychopath, whose major secret power is his ability to win people over to his side by sheer force of personality.

Achilles *sounds* as if he might be a great literary villain, a complex conglomeration of Iago, Bill Clinton, Machiavelli, Charles Manson, and Mick Jagger, the latter because he is described as a devil for whom it might not be impossible to find some sympathy.

But while he may have been well-rendered as such in one of the previous novels in the series that I have not read, for all I and other uninitiated readers may know, we see, we experience, we feel, none of

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

that in *Shadow Puppets,* where Achilles only makes a few little cameo appearances.

Thus the title becomes rich in irony, for what we have here is a kind of Indonesian shadow puppet theater of a novel, in which the unseen greater events enacted by the far more colorful figures behind the screen of fictional time are far more puissant than the pale shadows thereof presented to the audience on the other side.

If *Shadow Puppets* is a cautionary example of what bowing to the current economic determinism of fan-based science fiction can lead to along an extended vector toward condition terminal, Paul Di Filippo's *A Mouthful of Tongues* is an even more extreme example of the literary advantages to be gained by forthrightly committing knowing commercial seppuku and raising a great big juicy finger to the whole economic machinery.

Di Filippo has been writing speculative fiction for some time now, and to the best of my recollection has published only one or two volumes in SF lines. As regular readers of his review columns in this magazine will know, he is conversant with the small press scene, and as they will also know from his admirably complete coverage of it, there are a great many such small presses publishing science fiction, fantasy, and fiction inhabiting the elusive genre and literary region between.

For my money, Di Filippo is one of the best writers currently working this literary territory, and certainly one of the most entertaining, adventurous, and skilled stylists. His novel *Ciphers* is one of the most outstanding speculative novels of the past four or five years.

Given their spotty distribution and low press runs, no one is going to get rich being published by the small presses—indeed, anyone would be hard-pressed to survive economically at all being published in this manner. Yet most of Di Filippo's novel length work *has* been published in this manner, including his aforementioned masterpiece.

When it was, I could see only three explanations for such a bizarre situation: either there was no editor of an SF line with the sense of literary responsibility to publish a novel superior to at least 90 percent of the titles published as SF the year of its appearance, or Di Filippo deliberately chose small press publication himself for reasons of his own, or both.

Now, with the small press publication of *A Mouthful of Tongues,* perhaps both the situation and Di Filippo's wisdom in opting out of "major SF line" publication is clarified.

In addition to being a major stylist and no mean speculator, particularly in the gray area (if that is the word) between science and metaphysics, Di Filippo is a forthright eroticist, and his erotic descriptions are forthrightly explicit. Di Filippo enthusiastically celebrates all—and I do mean all—modes of human sexuality and does not shy away from doing so in poetic and often humorous prose and in full X-ratable and imaginatively speculative detail.

I hasten to add that he is no "pornographer." There is nothing "prurient" about his enthusiastic interest; far from it, Di Filippo deals with such activities with warm good humor, engaging prose, and, when the story dictates, with love. Yes, there are "arousing" pas-

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

sages in his work aplenty, but as Brian Kirby, editor of the late, lamented Essex House Books, declared as the esthetic motto of his line, "There's no reason why good literature can't give you a hard-on."

And that would seem to be the salient point. Paul Di Filippo writes good literature, arguably verging on great literature. And anyone incapable of achieving an erection (or the female equivalent) now and again in the reading thereof should see a doctor posthaste.

Essex House specialized in publishing erotic science fiction, much of it written by science fiction writers. Moreover, Kirby eschewed pseudonyms on the grounds that he did not want to publish work that writers were not proud enough of to put their names to, and were Essex House still in existence, he surely would have snapped up *A Mouthful of Tongues* eagerly.

Kerry Hackett works for a biotech company that has secretly created a "benthic," an artificial organism capable of shape-changing and much, much more. As the result of a traumatic experience, in despair, in a fugue state, she touches the benthic, and it merges with her and/or she with it to become a kind of composite creature.

Off she goes to a strange tropical Bahia, an alternate Bahia, perhaps, sometimes seeming to be a Bahia of the previous century, lost in time. Here she is a perpetual changeling, a benthic avatar of an at times vengeful and at times generous female sexuality, all sexual things (many of which are speculatively imaginative indeed) to all men, seeking, if not entirely consciously, to spread her benthic nature via blood and sperm and other vital bodily fluids to the whole wide organic world.

Sexual congress with her via whatever organ (and many previously unknown to men and women) *changes* men into women, women into men, both into composite beings or flocks of birds and butterflies. Vaginas extrude penises, penises grow to reach their owner's rectum, tubelingual fellatio becomes a variety of erotic experience, a mansion is drowned in a tsunami of sperm, and much, much more.

Yet this is not mere pornography. What we have here is both a paean to and a cautionary depiction of pantheistic sexuality and sexual pantheism, and what makes it a literary marvel is that Di Filippo even-handedly gives us both the light and the dark side of this most puissant protoplasmic and metaphysical force.

What is more, he does this with a lushly baroque yet utterly contemporary prose style totally appropriate to the overheated tropical setting and the superheated sexuality, while fearing not to employ forthright Anglo-Saxon biological terminology without breaking mood, and mostly marvelously magically describes even the darkest and otherwise most horrific events with good-humored and humorous brio.

A Mouthful of Tongues is the ultimate Essex House novel. Believable scientific speculation. Sexual magic and Latin American Magic Realism. Real and sympathetic characterization. Lavish attention to descriptive detail. And yes, capable of generating hard-ons.

Need I add that no SF line, no major mainstream publisher at all, these days (or perhaps ever) would

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

touch this novel with a fork? Need I add that Di Filippo would have had to have been a naïve fool to believe that any would?

But perhaps it does need to be pointed out that any writer contemplating this reality beforehand and thinking commercially in terms of "career strategy" would hardly have been likely to have presumed to write such a novel at all.

In retrospect, then, Di Filippo's choice to eschew the allure of commercial mainstream publishing success several books back not only gave him the freedom to write *A Mouthful of Tongues* for whatever commercially limited readership it will find but allowed him, over wordage and time, to develop into a writer capable of writing such a novel in the first place.

It took more than talent, more than skill, more even than literary idealism, more even than prescient foresight. It took what seems all too lacking among even most literarily idealistic SF writers under the current economically determined publishing conditions these days, and utterly lacking among commercial SF publishers.

It took chutzpah, or, as even an emphatic non-sexist like Di Filippo might put it under the circumstances, it took balls. ○

Chat online
with your favorite authors!

SF Perils of Pauline **January 28 @ 9:00 P.M. EST**
Robert J. Sawyer, Allen M. Steele, and Rajnar Vajra discuss adventures in serialization!

Me and My Valentine **February 11 @ 9:00 P.M. EST**
Find out what life is like in the writing households of Kevin J. Anderson and Rebecca Moesta, Geoffrey A. Landis and Mary A. Turzillo, and Gardner Dozois and Susan Casper.

The Watch **February 25 @ 9:00 P.M. EST**
Meet Eos author Dennis Danvers, and talk about his new book.

Go to **www.scifi.com/chat** or link to the chats via our home page (**www.asimovs.com**). Chats are held in conjunction with *Analog* and the Sci-fi Channel and are moderated by *Asimov's* editor, Gardner Dozois.

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

SF Conventional Calendar

Two ConFusions, two MarsCons; you can't tell the cons without a scorecard. Plan now for social weekends with your favorite SF authors, editors, artists, and fellow fans. For an explanation of con(vention)s, a sample of SF folksongs, info on fanzines and clubs, and how to get a later, longer list of cons, send me an SASE (self-addressed, stamped #10 [business] envelope) at 10 Hill #22-L, Newark NJ 07102. The hot line is (973) 242-5999. If a machine answers (with a list of the week's cons), leave a message and I'll call back on my nickel. When writing cons, send an SASE. For free listings, tell me of your con 6 months out. Look for me at cons behind the Filthy Pierre badge, playing a musical keyboard.—Erwin S. Strauss

JANUARY 2003

23–27—**FURther ConFusion.** For info, write: **105 Serra Way #236, Milpitas CA 95035.** Or phone: **(973) 242-5999** (10 AM to 10 PM, not collect). **(Web) www.furtherconfusion.com. (E-mail) info@furtherconfusion.com.** Con will be held in: San Jose CA (if city omitted, same as in address) at the Doubletree. Guests will include: none announced. Furries.

24–26— **ConFusion. www.stilyagi.org.** Detroit MI. Melissa Scott, P. O'Leary, A. Clark. General SF/fantasy convention.

24–26—**MarsCon. www.marscon.net. info@marscon.net.** Clarion Hotel, Williamsburg VA. SF/fantasy relaxacon.

24–26—**VeriCon. www.vericon.org.** Harvard U., Cambridge MA. P. Wrede, T. Campbell, M. Kunkel, J. Winick, C. Asaro.

31–Feb. 3—**UshiCon. (512) 478-1111 (hotel). www.ushicon. com. info@ushicon.com.** Marriott, Austin TX. Anime.

FEBRUARY 2003

7–9—**CapriCon, Box 60085, Chicago IL 60660. www.capricon.org.** Sheraton, Arlington Hts. (Chicago) IL. Tim Powers.

7–9—**Love is Murder, c/o OCE, DuPage College, 425 Fawell Blvd., Glen Ellyn IL 60137. www.cod.edu.** Mysteries.

7–9—**UK Filk, 155 Long Meadow, Aylesbury HP21 7EB, UK. (01296) 331-055.** Holiday Inn, Ipswich UK. Music.

7–9—**SF Ball, 6 The Street, Sutton Waldron DT11 8NX, UK. www.starfleet-ball.com.** Bournemouth. Media.

8–9—**Creation Xena, 1010 N. Central Av., Glendale CA 91202. (818) 409-0960.** Pasadena CA Center. Commercial con.

10–14—**Sci Fi Sea Cruise, Box 936135, Margate FL 33093. (800) 683-7447.** Sails from south Florida.

10–14—**Nikita Cruise, Box 2036, Jacksonville FL 32203. www.oversight.org.** Norwegian Majesty, Miami to Cozumel.

14–15—**Life, the Universe & Everything, 3163 JKHB, Provo UT 84602. www.humanities.byu.edu/ltue/.** P. Wrede.

14–16—**Boskone, Box 809, Framingham MA 01701. (617) 625-2311. www.nesfa.org.** Sheraton, Boston MA. D. Brin.

14–16—**RadCon, 2527 W. Kennewick Ave. #162, Kennewick WA 99336. radcon.yi.org.** Doubletree, Pasco WA. Thomas.

14–16—**FarPoint, 6099 Hunt Club Rd., Elkridge MD 21075. www.bcpi.net/~wilsonr.** Marriott, Hunt Valley MD. Trek.

14–16—**KatsuCon, Box 222691, Chantilly VA 22153. (703) 795-2219.** Hyatt, Crystal City VA (near DC). Anime.

14–17—**Gallifrey, Box 3021, N. Hollywood CA 91609. www.gallifreyone.com.** Airtel, Van Nuys CA. C. Baker. Dr. Who.

21–23—**Con DFW, 2183 Buckingham Rd. #282, Richardson TX 75081. www.condfw.org.** Radisson. D. Cherry, Elrod.

21–23—**SheVaCon, Box 416, Verona VA 24482. www.shevacon.org.** Holiday Inn Tanglewood, Roanoke VA. H. Clement.

21–23—**Potlatch, c/o 6405 Regent, Oakland CA 94618. www.potlatch-sf.org.** Ramada, San Francisco CA. Literary SF.

21–23—**AnimeCon, Quirinaalhof 2P, Maastricht 6215 PH, Netherlands. www.animecon.nl.** Haarlem Zuid, Haarlem.

28–Mar. 2—**MarsCon, Box 21213, Eagan MN 55121. (612) 724-0687.** Hilton, Bloomington MN. J. C. Brown, L. Mailer.

28–Mar. 2—**SentiCon, Box 141276, Grand Rapids MI 49514. www.senticon-michigan.com.** Radisson. Adult fanzines.

AUGUST 2003

28–Sep. 1—**TorCon 3, Box 3, Stn. A, Toronto ON M5W 1A2. www.torcon3.on.ca.** Freas. WorldCon. C$250+/US$170+.

SEPTEMBER 2004

2–6—**Noreascon 4, Box 1010, Framingham MA 01701. www.noreascon.org.** Boston MA. William Tenn. WorldCon. $140.

AUGUST 2005

4–8—**Interaction, Box 58009, Louisville KY 40268. www.interaction.worldcon.org.uk.** Glasgow UK. WorldCon. $115.

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

CLASSIFIED MARKETPLACE

Asimov's March '03

Advertise in the world's leading science fiction magazines with our Asimov's/Analog combined classified section. Ad rates per issue: $2.95 per word (10 word minimum), $125 per column inch (2.25 inch maximum). SPECIAL INTRODUCTORY OFFER: Buy two ads and receive a third ad FREE. Send orders to: Dell Magazines, Classified Department, 475 Park Ave. S., 11th Floor, New York, NY 10016. Direct inquires to: (212) 686-7188; Fax (212) 686-7414 or email: classifiedads@dellmagazines.com

AUDIO/VIDEO

Audiobooks, Niven, LeGuin, Willis, Baxter, Egan, Sterling, Reed, Etc. www.audiotexttapes.com

BARGAIN DVD's at savings of 60% and more, in a variety of genres! www.BulldogBargains.com

BOOKS/PUBLICATIONS

Books, Sci-Fi & More. Low Prices. Visit www.jyeagerbooks.com

BUYING SCIENCE FICTION magazines, book collections. Will travel for large accumulations. Bowman, Box 167, Carmel, IN 46082.

CHRISTIAN SCIENCE FICTION print magazine and webzine. http://www.gateway-sf-magazine.com

CREATIVE SOLUTIONS INCLUDE REVOLUTION

Nova Albion: Science Fiction & Fact zine
Free catalog of all products Samples available
P A C, PO Box 2523, San Anselmo, CA 94979
www.pacificareacomm.com 415-259-0118

Novel: BEYOND THE TIME MACHINE; Mars Faces. http://us.geocities.com/bttm_book/

PUBLISH YOUR BOOK ONLINE, Third Millennium Publishing, a cooperative of online writers and resources, http://3mpub.com

www.rereadables.com. Online Used Book Store. Science Fiction, mystery and more.

COLLECTOR'S ITEMS

ORIGINAL ART for SF/F/H books, magazines, gaming +. Color catalog $15.00 (overseas $20.) Vintage illustrations always wanted. Worlds of Wonder, POB 814-Dell, McLean, VA 22101. www.wow-art.com

INSTRUCTION

SCIENCE FICTION WRITING CLASSES. Published SF authors teach Science Fiction Writing online at www.WritingClasses.com. Selected "Best of the Web" by *Forbes*. For FREE catalog call 877 974-8377.

MISCELLANEOUS

PLASTIC MODELS: Space, Sci-Fi, TV, movies, etc. Free Catalog, also buying/trading. Green's Dept. DL, Box 55787, Riverside, CA 92517. (909) 684-5300; (800) 807-4759; FAX (909) 684-8819; dl@greenmodels.com; http://www.greenmodels.com

PTCIL - Plan and invest your way to Space. www.poweroftenclubintlltd.org

STARFLEET, the International Star Trek Fan Association. 4000 Members worldwide. www.REGION2.ORG. REGION2RC@AOL.COM

PSYCHICS

SPIRITUAL PSYCHIC
HELPS RESTORE BROKEN LOVE
HEALTH • HAPPINESS • PEACE • REMARKABLE RESULTS.
CALL FOR PHONE READINGS
VISA/MC **(707) 579-5123** AMEX

UNUSUAL ITEMS

Alien Nature or Human Nature: Understand it all. The Truth? Can you handle the Truth? Find out at www.all2true.org and www.all2true.com. Also, you may find interesting things like back issues of *Analog, Asimov's* and *Aboriginal Science Fiction.*

HEAR ABOUT DOMINION DEFEAT! http://dcwi.com/~thiel. Visit SF Forums!

ANALOG SCIENCE FICTION AND FACT
Classified Department 475 Park Ave South, 11th Floor New York, NY 10016
Call: (212) 686-7188 Fax: (212) 686-7414 classifiedads@dellmagazines.com

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

NEXT ISSUE

APRIL NOVELLAS

Hot writer **Charles Stross**, one of the most talked-about authors of the Oughts to date, returns with our April cover story, "Nightfall," part of the bizarre continuing saga of the Macx family that began here last year with the acclaimed "Lobsters." In this wildly inventive novella, Amber Macx returns from a voyage to interstellar space in a starship the size of a can of soda to find herself in even more trouble back in what's left of the solar system (posthuman intelligences having *eaten* the rest of it) as she's summoned to be an unwilling guest at a family reunion with a cast of characters as strange as any ever seen in science fiction—including a few drop-ins and gate-crashers that surprise everybody! This is one party you're *not* going to want to miss. The evocative cover is by Hugo-winning British artist **Jim Burns**.

Our other April novella is by multiple Hugo and Nebula Award-winner **Robert Silverberg**, who returns to his long-running "Roma" series with the suspenseful story of "The Reign of Terror"—one dreadful enough to shake even the millennia-old Roman Empire and threaten it with a fall into chaos and oblivion. The "Roma" series has been one of the finest Alternate History series ever written, and "The Reign of Terror" is one of its finest episodes, so you won't want to miss *it*, either.

But that's not *all* we have in store for you in our April issue—not by a long shot!

OTHER TOP-FLIGHT WRITERS

Hugo, Nebula, and World Fantasy Award-winner **Michael Swanwick** returns with a dizzyingly pyrotechnic story that embroils an ordinary woman with the deadly behind-the-scenes battling done by "Legions in Time"; popular and prolific British writer **Paul McAuley** preaches a sly and elegant lesson about "The Madness of Crowds"; Hugo and Nebula Award-winner **Kristine Kathryn Rusch** lets us eavesdrop on the poignant and haunting things that happened during "June Sixteenth at Anna's"; the Prince of Gonzo, **Neal Barrett, Jr.**, returns after much too long an absence, to take us to a future society that's fallen on "Hard Times"; and multiple Hugo and Nebula Award-winner **Mike Resnick** tips his postmodern hat to us with a wink and a jaunty "Here's Looking at You, Kid."

EXCITING FEATURES

Robert Silverberg's "Reflections" column lets you know where you can find some valuable "Writers' Tools"; and **Paul Di Filippo** brings us "On Books"; plus an array of cartoons, poems, and other features. Look for our April issue on sale at your newsstand on February 25, 2003, or subscribe today (you can also subscribe online, or order Asimov's in downloadable electronic formats, at our *Asimov's* website, *www.asimovs.com*) and be sure to miss none of the great stuff we have coming up for you this year!

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

6 Issues, Just $9.97!

Subscribe today to *Ellery Queen's Mystery Magazine* and you'll get every intriguing issue delivered directly to your door.

Ellery Queen's Mystery Magazine leads the genre in critical acclaim with more than 50 major awards and nominations just since 1990! With suspenseful stories from the honor roll of mystery and crime fiction's great writers PLUS mystery limericks, poems and cartoons, book reviews, and an occasional mystery crossword!

SAVE 40%!

To order by charge card, call toll-free:

1-800-333-3311

Outside the U.S.A.: 1-850-682-7644

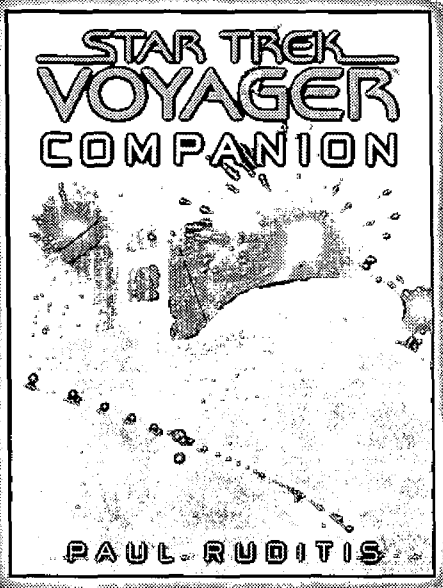
BY MAIL

Ellery Queen, P.O. Box 54052,
Boulder CO, 80322-4052

Please allow 4 to 6 weeks for delivery of your first issue. Outside U.S.A.: Add $4 per year for shipping and handling. All orders must be paid in U.S. funds. *We publish a double issue once a year which counts as two issues toward your subscription. 5E10

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

The adventures in the Final Frontier continue!



Relive the seven years of unforgettable drama and explosive action in the Delta Quadrant with this essential guide to the sensational *Star Trek: Voyager* series!

Forced to kill in self-defense, *Enterprise*'s Vulcan Sub-Commander T'Pol forswears all violence—even on captain's orders. But will her choice now endanger the entire ship!

ALSO AVAILABLE THIS MONTH IN PAPERBACK:

Star Trek: The Original Series—Garth of Izar

Star Trek: The Eugenics Wars—The Rise and Fall of Khan Noonien Singh, Volume Two

STAR TREK BOOKS

Published by Pocket Books
A Division of Simon & Schuster

Visit www.simonsays.com/st and www.startrek.com

Available wherever books are sold.

™ & © 2003 Paramount Pictures. All Rights Reserved. STAR TREK and related marks are trademarks of Paramount Pictures. Pocket Books Authorized User.

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED